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Drug & Cosmetic INDUSTRY

February 1942

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Drug & Cosmetic INDUSTRY

FEBRUARY 1942

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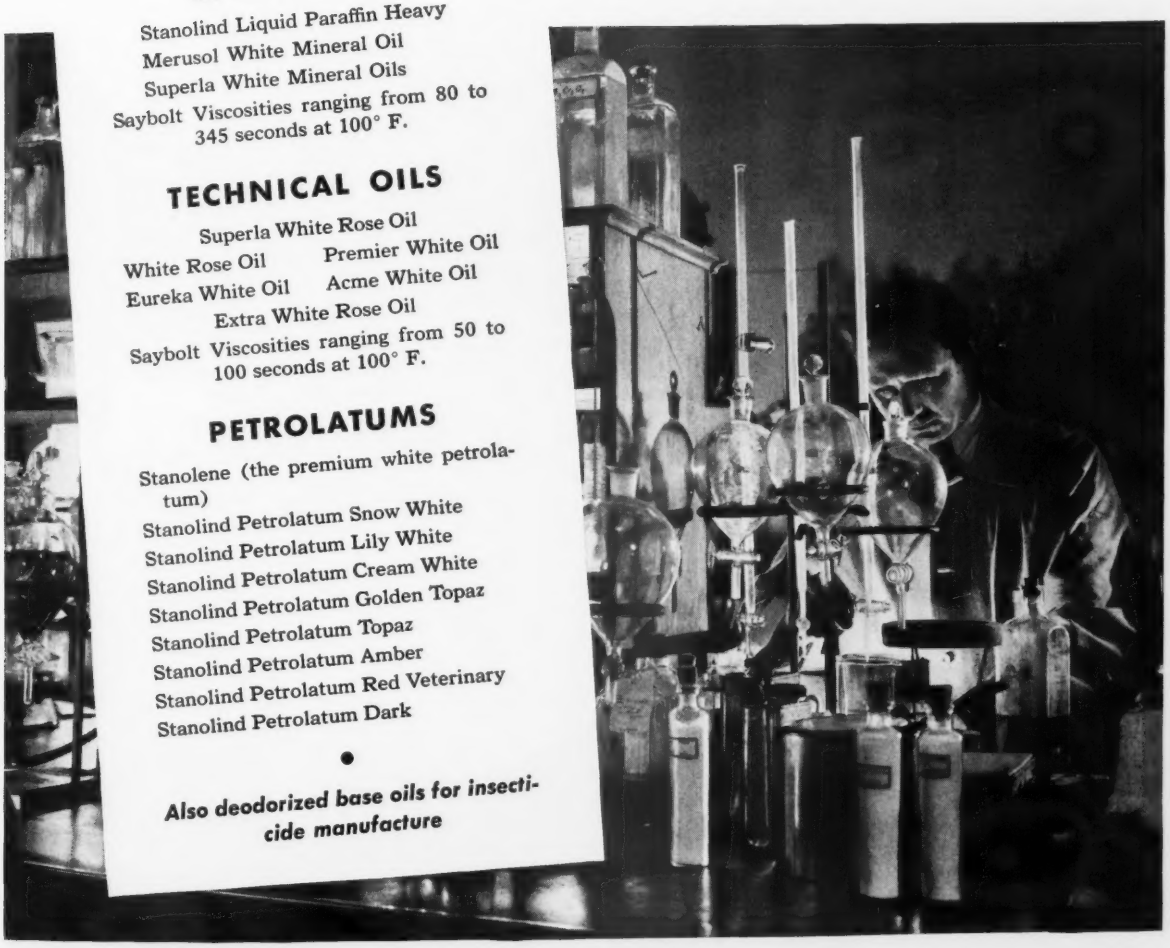

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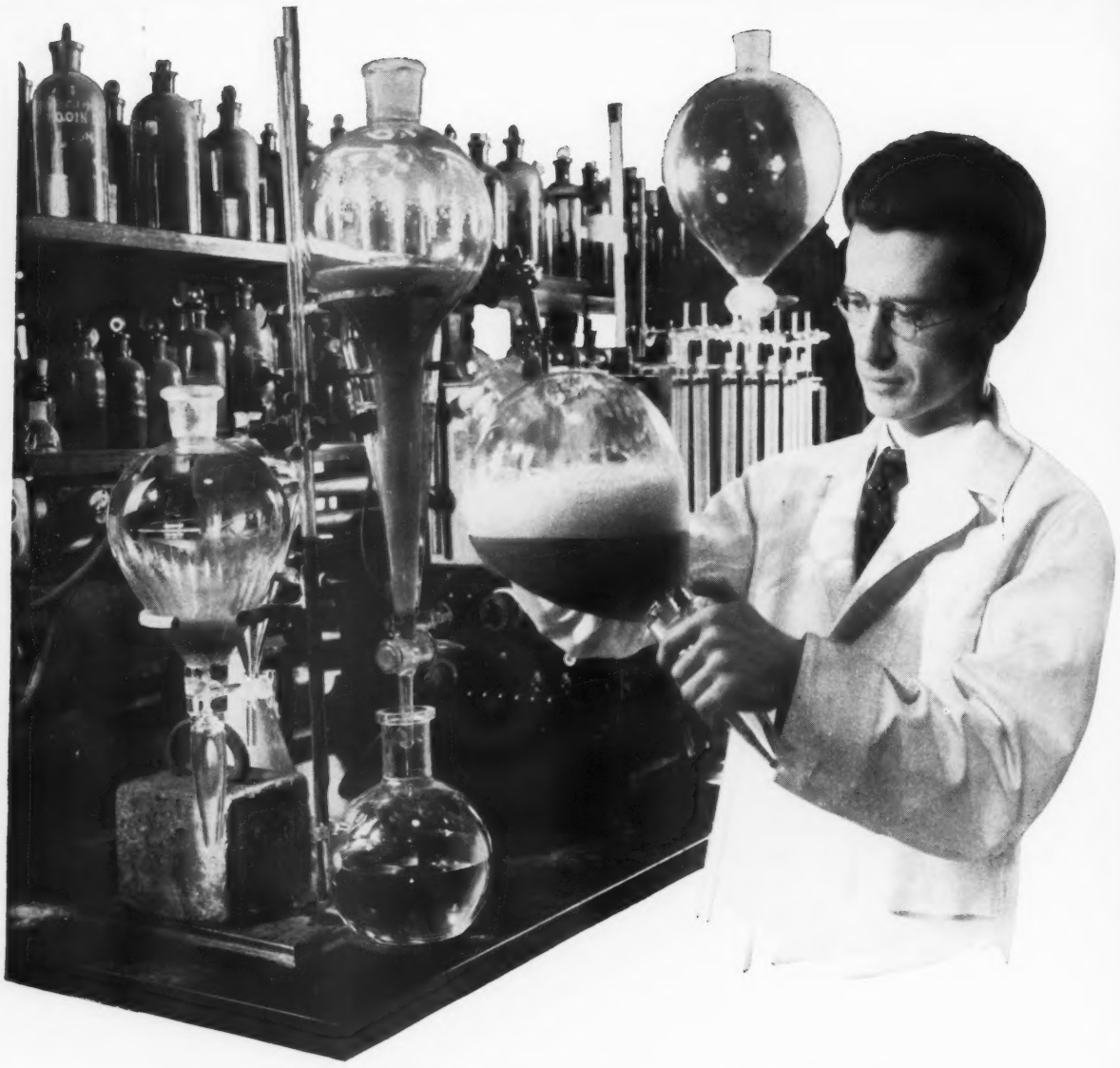

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WAR CHANGES!

IT HAS BEEN SAID that one of the results of War which can be placed on the credit side of the ledger of life is that advance which industry in general makes under its urging. Specifically, the Drug and Cosmetic Industries have obeyed this edict. From the chaos of the last war there was built up an ever increasing tradition of quality and purity in cosmetic and proprietary products which has reached a peak today.

NOW, Democracy is again threatened and its defense is constantly calling for more sacrifice and more restrictions. The Cosmetic and proprietary industry must expect restrictions on raw materials, perhaps curtailment of manufacture. But whatever the hazards and burdens of production may be, *there will be always cosmetics.*

THERE WILL BE CHANGES as in other wars. But there has never been a cosmetic item for which a better substitute could be not produced. Keyed to the challenge, restrictions will only bring out new products and reformulations which will out-mode the preparations they replace.

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Worth looking into!

This Anchor Hocking Container and Closure for Drugs

Sealed with the Anchor Hocking Falcon Cap illustrated at right, this Anchor Hocking container is ideal for effervescent salts, dry chemicals, powders and many other products. Wide mouth provides easy accessibility to contents, permits use of teaspoon for dispensing. Labeling space is generous. This container also provides maximum visibility of contents, and is easy to store in bathroom cabinet.

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● Support the 17th Annual Drug, Chemical and Allied Trades Banquet at the Waldorf-Astoria Hotel, New York, March 12, 1942.

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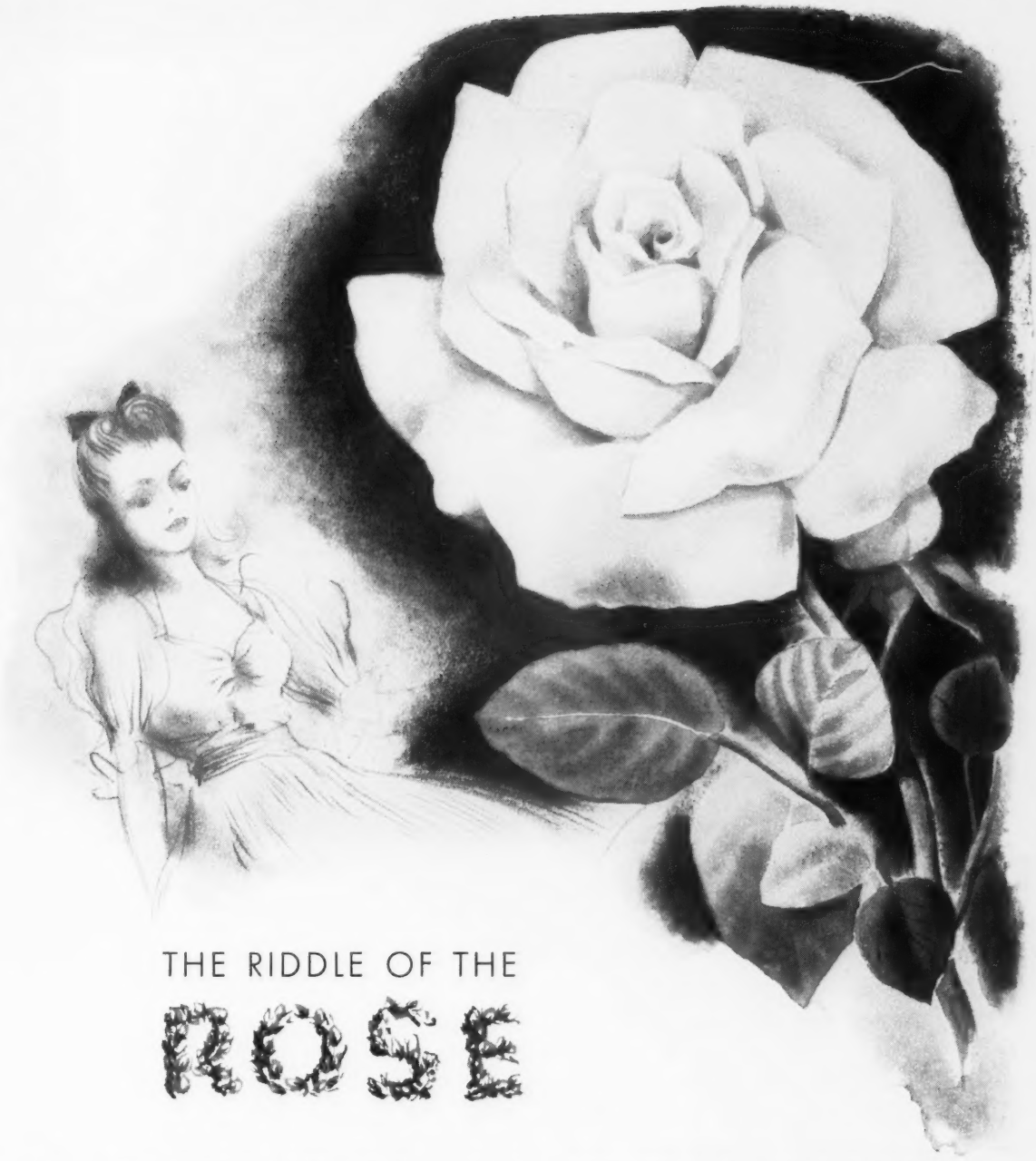

THE RIDDLE OF THE ROSE

AMONG NATURE'S closely guarded secrets is the mystery of the elusive flower odor. Since the beginning of modern chemistry, scientists have tried to solve this riddle. Progress has been made, to be sure. Chemists have isolated many of the constituents of essential oils. Yet, today, no one knows completely the secret of most floral odors—and a missing or misunderstood molecule often destroys an otherwise perfect formulation.

Several years ago Dow began a program of intensive research that has resulted in a steadily growing variety of synthetic aromatics. A selected group of specialists is now concentrating on the isolation and synthesis of important constituents of natural flower oils—still working to solve the old "riddle of the rose." The result: new ideas, new chemicals, to assure America of a reliable domestic source for aromatic materials.

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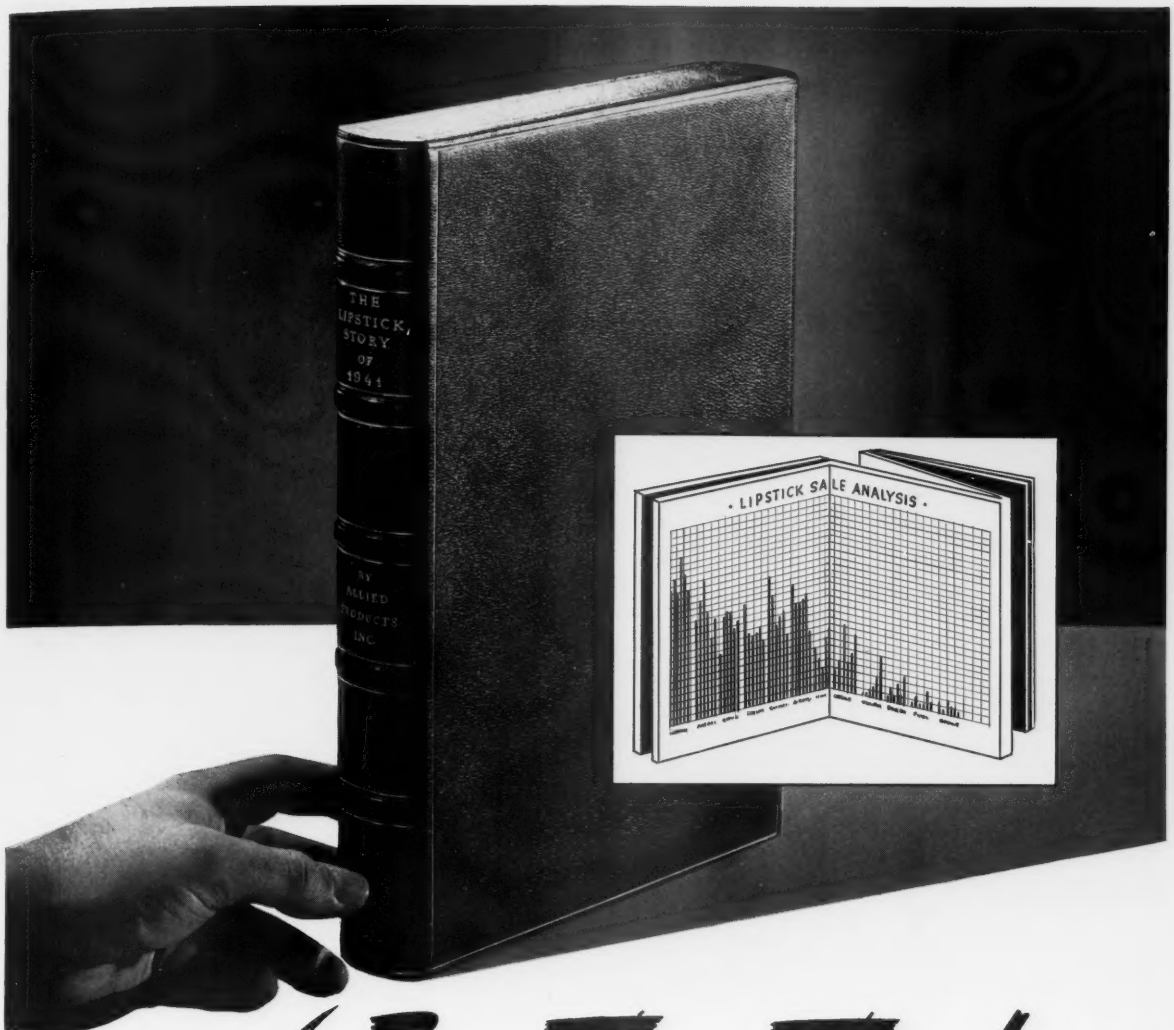
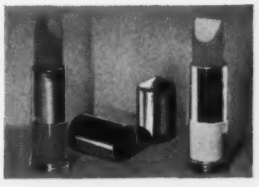


At Your Finger Tips!

What the dictionary is to the writer... what the navigation chart is to a pilot... consumer surveys are to cosmetic manufacturers. Properly analyzed and applied, these surveys direct his efforts toward keeping his line keyed to fashion... to demand... and PROFITS!

The APLI chart breaks down production of many millions of lipsticks in all shade groups popular over recent months into *twelve major classifications.* These production figures are an accurate summary of what Milady has preferred in lip color—and become the basic means by which to anticipate her future demands.

A presentation of this factual data to cosmetic company executives will be gladly arranged when an appointment is requested. Important informative material is also available on the subjects of preferred texture, yield and indelibility. Also obtainable, at no obligation, is the complete set of twelve composite lipstick shades prepared from each group of the twelve major lipstick classifications.



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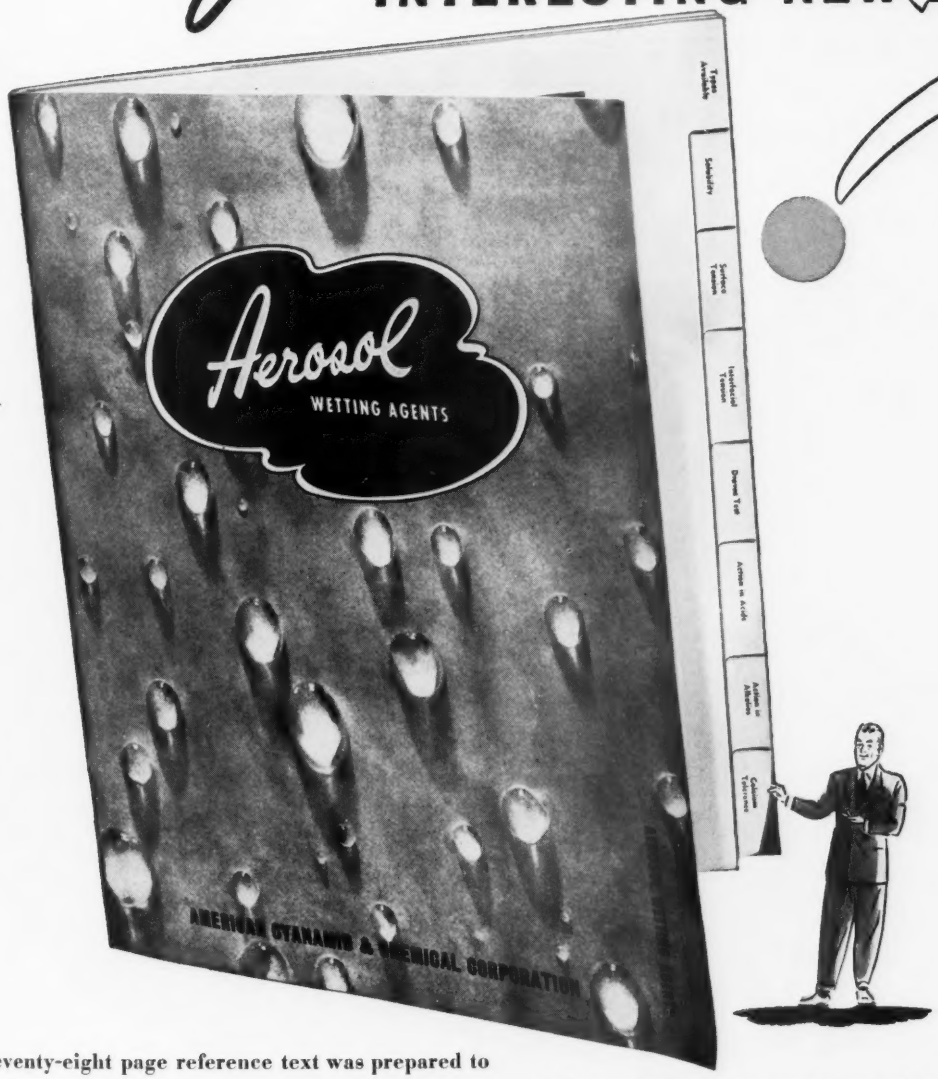

This seventy-eight page reference text was prepared to present in a clear, factual, and useful way the characteristics and methods of applications of AEROSOL* Wetting Agents. The purity of these products, combined with certain special properties not found in other commercially available surface-active materials, places them in a class by themselves. As a result, many industries are finding AEROSOL Wetting Agents indispensable to an increasing number of applications. *Reg. U.S. Pat. Off.

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INSIDE NEWS

FEBRUARY PREPARED BY NATIONAL CAN CORPORATION, NEW YORK, N. Y. 1942

Chemistry Plays a Part In National's Research

In the present national emergency it is well to remember that wars very often stimulate progress. The Napoleonic wars gave the impetus which led to the development of the processed foods industries. The ability to process and preserve quantities of food stuffs gave rise to the need for a strong, unbreakable container which would easily conduct heat through its surfaces. Tinplate was found to meet the requirements for a food container and since that time the tinplate container and the food processing industries have continuously developed and progressed to the present day, in which canned food is a very important item of National Defense effort.

Tinplate is composed of a steel base coated or covered with a thin layer of tin. It is well known that ordinary steel is very susceptible to attack and corrosion and would be entirely unsuitable by itself in an unprotected state to serve as a container. The coating of tin on tinplate serves to protect the iron from attack for two reasons; first, because tin in itself is much less reactive than iron and in contact with moisture does not corrode or rust, second, because in some instances due to highly complicated chemical reaction tin corrodes very slowly and "spares" the attack on exposed areas of iron by means of electrical action.

In order to take full advantage of the protective action of the tin coating on tinplate it must be carefully controlled, so that a definite amount of tin is present on the sheet, and that this tin is uniformly distributed. As a part of tinplate inspection the Chemical Division makes frequent determinations of the amount of tin coating on the tinplate received. How this is done is shown in the accompanying photograph. By means of this procedure the maintenance of certain standards of tin coating necessary for the proper performance of the tin container is assured.

A piece of tinplate of known area is dissolved in acid by means of heat in the presence of an inert atmosphere of carbon dioxide. Following solution of the tinplate, the amount of tin in solution is determined by means of titration with a standard solution of another chemical. From the result obtained, the amount of tin on any given unit of tinplate may be calculated. The apparatus pictured provides for nine simultaneous determinations.

In the past, research has resulted in numerous improvements both in the production of tinplate and in increasing its serviceability. It is to be expected at the present time that accelerated research activities will result in the continuation of the supply of essential tin coated containers while at the same time meeting the requirements of tin conservation demanded by the present situation. "RESEARCH IS ORGANIZED THINKING." (66)

Vitamins Seen as Sales Aid

Something that is new and attractive enough to sell and repeat—that is what canners are always hoping their production men can develop. In the field of fruit and vegetable juices they have had impressive success in recent years. Now a resourceful New Jersey canner after months of research has brought out a blend of four vegetable juices—tomato, celery, spinach and parsley—that is fortified with vitamins B_1, B_2, and D.

A rising tide of consumer interest in better nutrition in recent months is leading many canners to weigh the advantages that fortification of their products with synthetic vitamins offers. Vitamins A and C and minerals are naturally present in several vegetable juices in adequate quantities. Addition of other vitamins, now made possible through research, promises to accomplish two things: provide a complete schedule of daily vitamin requirements and step up sales. (67)

Herring in B. C.

Phenomenal growth has occurred in the herring canning industry of British Columbia in the past three seasons. In 1941, the orders amounted to 1,600,000 cases in the export business, an increase of 283 percent over 1939.

Two important new facilities have been installed by herring canners in British Columbia. These include methods for partially dehydrating the fish to make it firmer, and a mechanism for packing the fish whole, cleaned and dressed and garnished with tomato sauce, in 1-lb. and ½-lb. oval cans. (68)

Citrus Canners Convert Waste Into Profitable By-Product

Florida citrus canners have talked of converting waste into cattle feed for several years and several of them have done more than talk. Ordinarily it would cost canners perhaps $100,000 to dispose of the waste materials they will handle during the 1941-42 packs of grapefruit and oranges. But they will process this material into cattle feed and sell it readily for $30. per ton. The most important single factor in making citrus pulp feed was the discovery that the addition of enzymic or alkaline materials to the raw pulp facilitated the removal of water by mechanical means. (69)

Weathered Wood Effect

A weathered or driftwood effect on new lumber may be obtained by treating the lumber with one or more applications of medium strong solution or ferrous sulphate (copperas). If desired, use a gray-green paint, reduced with turpentine as a stain and as a final finish use a spar varnish, thinned down with turpentine—about one quart to a gallon. (70)

(Advertisement)

BY NATIONAL CAN

FEBRUARY PREPARED BY NATIONAL CAN CORPORATION, NEW YORK, N. Y. 1942

Canned Rice

Rice growers and canners in the Gulf States are following with more than casual interest successful California experiments in canning rice. For the last two years a program of research has been going on in the University of California laboratories. Rice growers in California, eager for some method of bettering their market, are canning rice and promoting its sales in a small way.

Rice is one of the richest foods in vitamin B content, yet per capita consumption of rice in the United States is the lowest of any country. The English people eat 14 pounds of rice per capita each year. In the United States the per capita consumption is only 4 pounds annually. (71)

British Use Greases in Paint Films

Sewage grease, wool grease, and similar materials have shown interesting substitute possibilities for use in the manufacture of paint films in recent British development work. It has been found that recovered greases can be processed so as to condense unsaponified constituents, which then are applicable as paint media. It has also been found that slight changes in the process enable the simultaneous formation of metallic soaps, particularly magnesium soaps, and that the mixture can be used to produce tough, flexible paint films.

Investigations have also revealed that waxlike materials formed by the condensation of certain aliphatic amines with cyclic polycarboxylic acids which do not form inner anhydrides possess very good binding power as regards oils, and therefore have suggested their use in the formulation of polishes, shoe creams and similar materials. (72)

Grapeseed Oil and Varnish

The processing of grape seed as a source of oil is being intensively developed in European countries. The first pressed oil is suitable for edible purposes, while oil obtained by warm pressing, or second pressing, is for use in varnish manufacture. (73)

Idaho Prune Juice

Although Idaho is best known for its potatoes and is not generally considered a canning state, research workers at the agricultural experiment station are not blind to the possibilities of canning for turning losses into profits. A great many prunes are produced in Idaho, and state workers have developed a formula for producing prune nectar, about the consistency of tomato juice, from fruit that otherwise would be culls. The formula is available to private and commercial canners who are interested. (74)

Movies Use Paint

Hollywood producers use thousands of gallons of paint and related products a year in their pictures, it is reported. One company in a recent year required 21,969 gallons of paint—more than a ton of paint per picture—and 22,633 gallons of thinner. Walls, floors, roofs and many other surfaces must be painted and decorated to make the movie sets complete. (75)

Skin Remover

Skins are removed from fruits and vegetables, after being loosened by heat or other processes, with a device invented recently by a Seattle man. The apparatus is so designed that the skins are removed by friction between the fruits and vegetables themselves as well as between these products and power-driven rollers in the machine. Sprays wash away the removed skins and also cool the fruit to prevent cooking when the skins are loosened by heat. (76)

Kukui Oil May Substitute

Among the many substances that have been suggested as possible substitutes for tung oil is kukui oil, which is extracted from the kukui nut. According to research chemists this product is equal in quality to tung oil. (77)

Salmon Pack Sets Quality Record

Rigid inspection of canned salmon, undertaken on an ambitious scale eight years ago, has paid remarkable dividends to canners. Up to late in October this year 3,730 parcels of canned salmon containing about 6½ million cases had been sampled and examined. This represented about 86 per cent of the total American pack. Inspection indicated that the 1941 pack is probably the best pack of canned salmon ever produced. (78)

Technical Topics

PEANUT OIL is being used as a motor fuel on the desert road to Dakar, Africa. (79)

A COLORLESS CHEMICAL containing nitrogen has been extracted from ragweed pollen and is believed to be a major cause of hay fever. (80)

A CHEMICAL made from eucalyptus oil has been patented in Australia, following successful tests as an anti-knock agent in gasoline. The chemical is phellandrene. (81)

THE "BLACK MARKET" in England for cosmetics is reported by the English trade press to be substantial. English production of cosmetics is limited by Government decree. (82)

COPAIBA OIL, used in medicine, in varnish and in photography, is produced in Brazil, Colombia and Venezuela. The United States has just contracted for the entire Brazilian production. (83)

PINE OIL is used in perfumery, paint, textile finishing and in great quantities in the separation of metals from their ores. A new synthetic turpentine relieves a serious shortage. (84)

THE ELECTRON MICROSCOPE is revealing a vast hidden world to scientists. Smoke particles from burning metal are shown to have characteristic shapes, often crystalline. (85)

CALCIUM FIRMING OF CANNED TOMATOES. About a million cases of canned tomatoes were packed this year with small quantities of calcium added to produce a product that is firmer and can be sold as higher than standard grade. Most of the canners used tablets made of table salt and calcium chloride. By using this treatment on the small Italian type tomatoes, canners now believe that a product can be developed that will be popular for winter salads, opening an important new market. The process of adding minute quantities of calcium chloride to canned tomatoes was legalized in June 1940. (86)

For further information on any of these articles write to National Can Corp., 110 E. 42nd Street, New York City. Please mention the number at end of article—also name of the magazine you saw it in.

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*An Editorial, Reprinted from the January 15th issue of Vogue**

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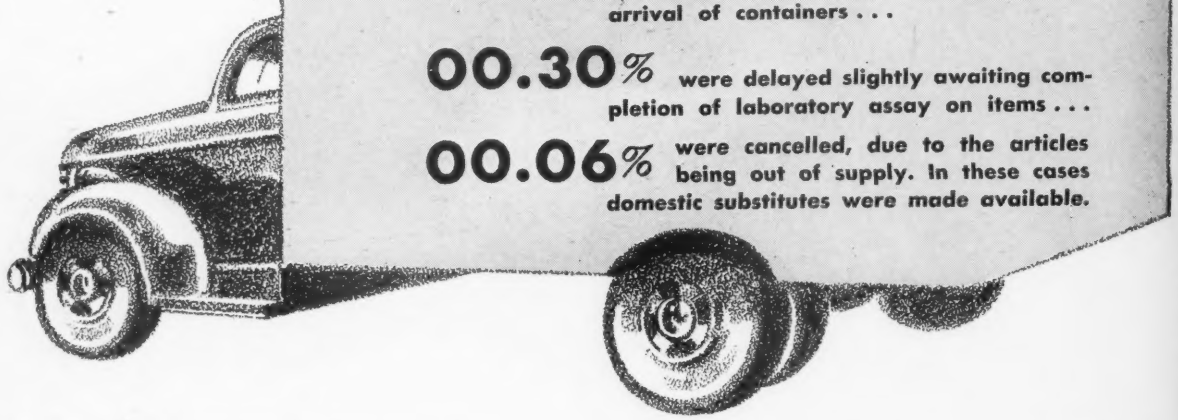

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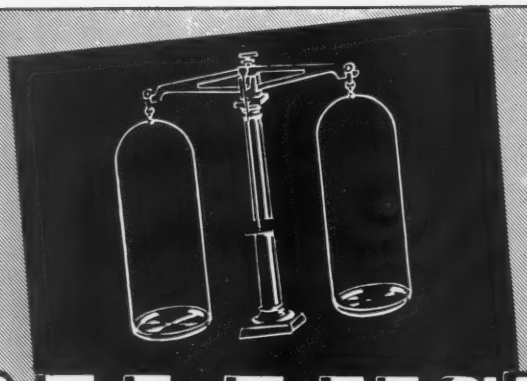

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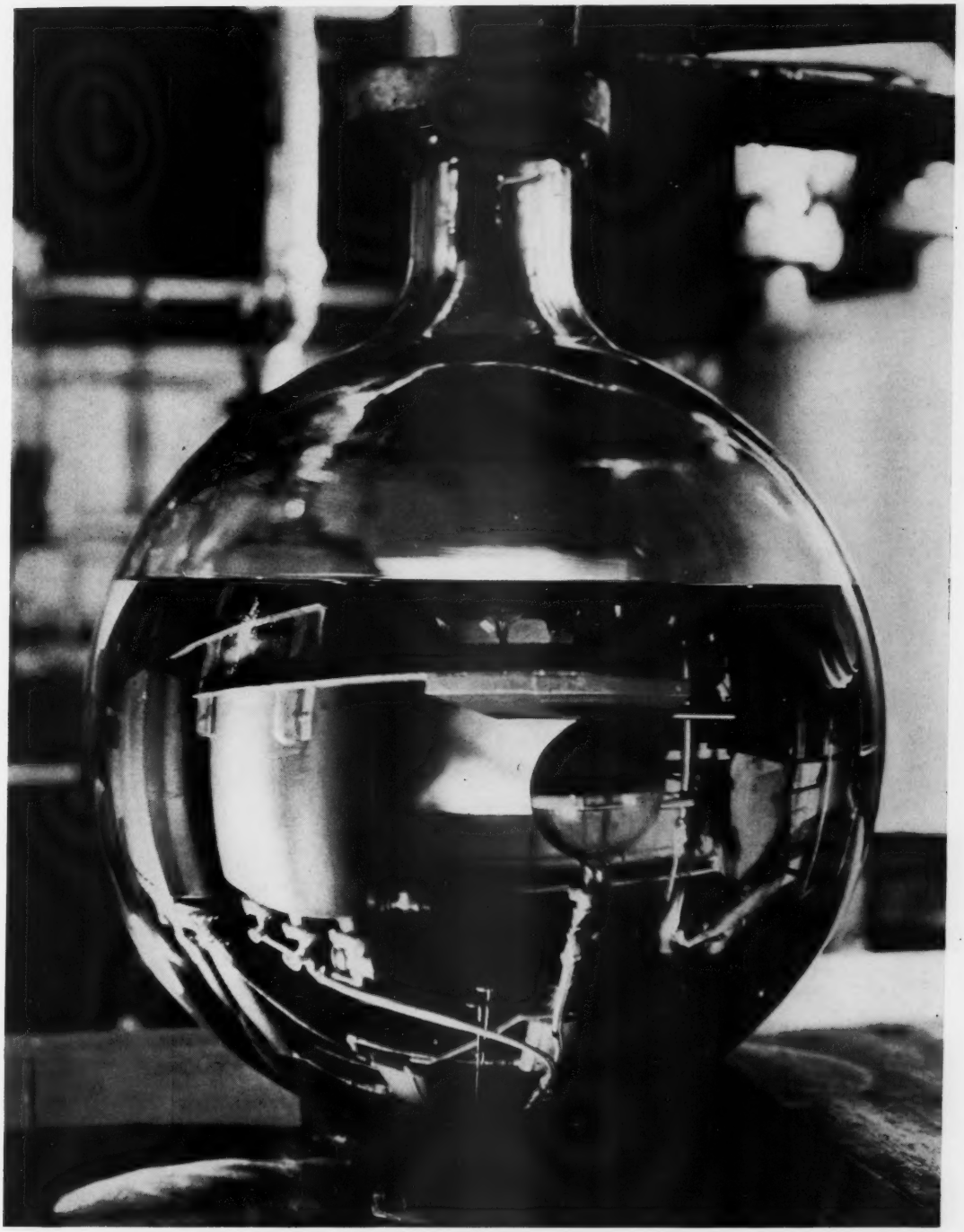

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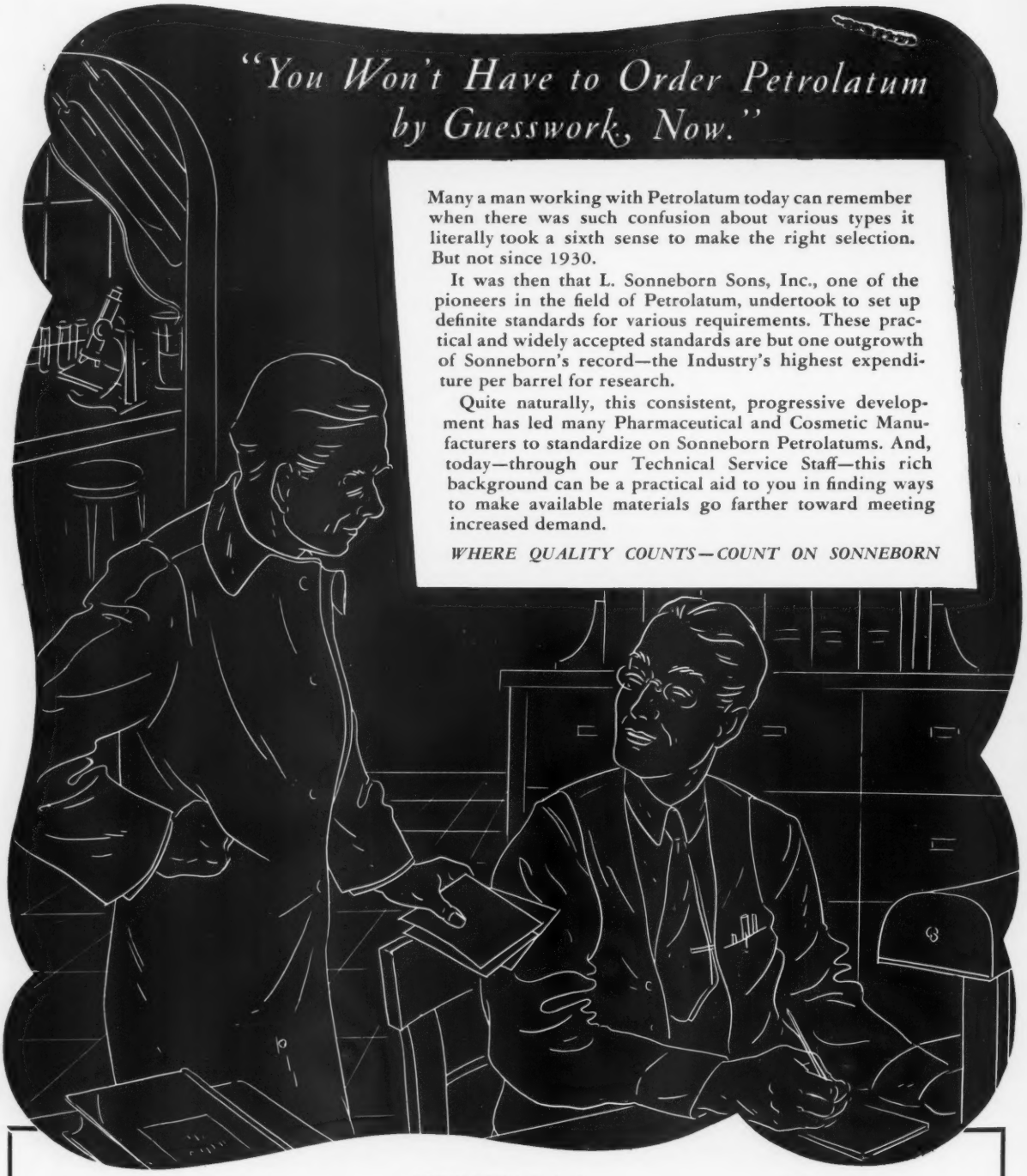

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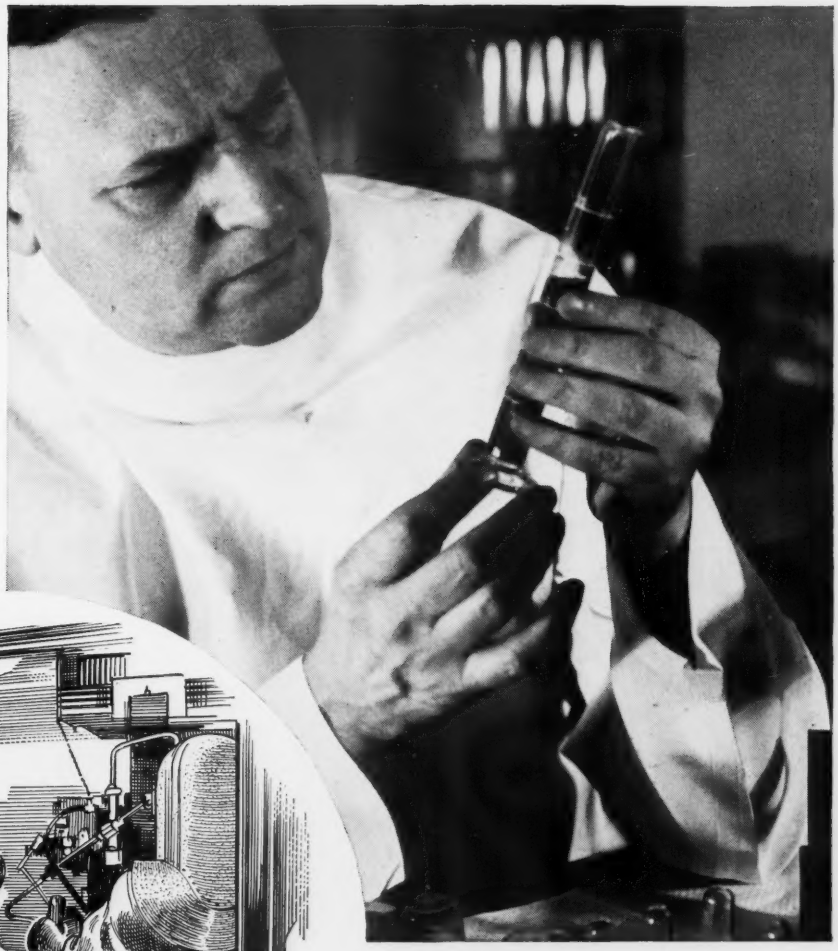

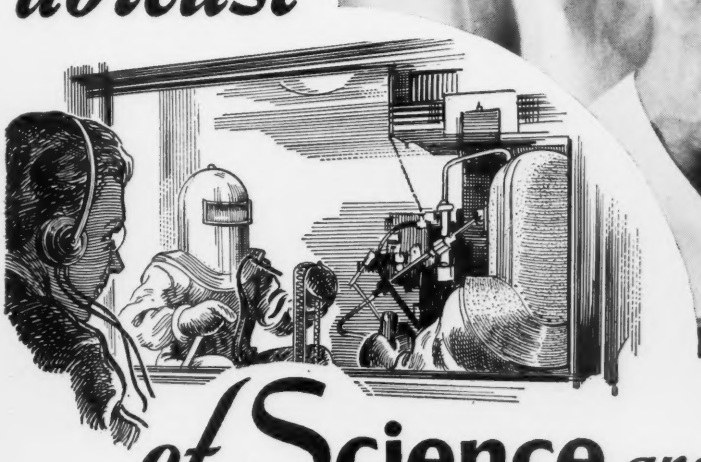

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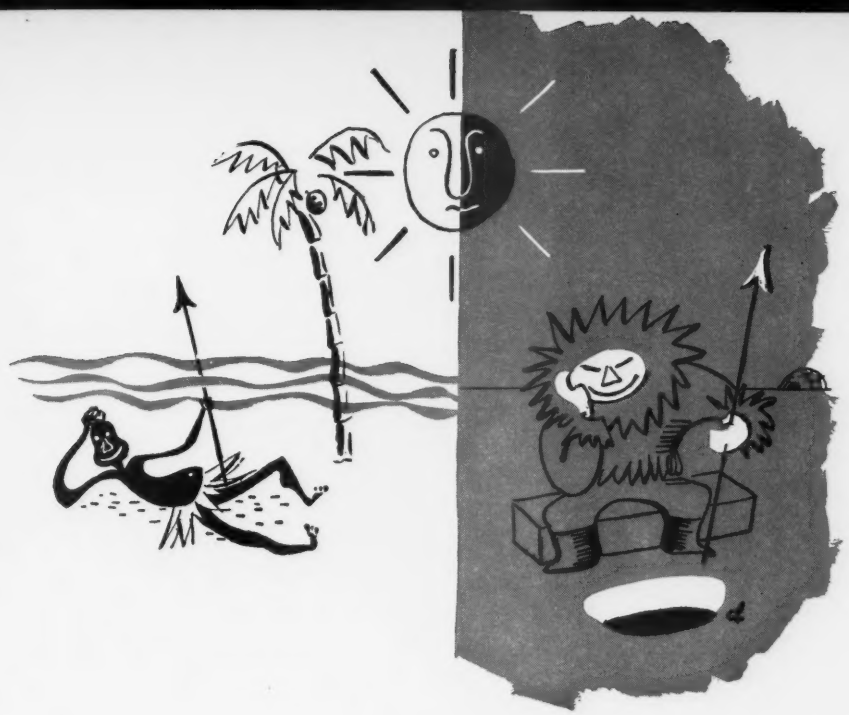

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The CHEMISTRY and MANUFACTURE of COSMETICS

By MAISON G. deNAVARRE, Ph.C., B.S.

Special Instructor in Cosmetics, College of Pharmacy, Wayne University; Technical Editor, American Perfumer and Essential Oil Review; Associate Editor, Proprietary Drugs

(With a Chapter on the Federal Food, Drug and Cosmetic Act of 1938 by Ralph J. Mill, B.S., LL.B.)

TO GIVE YOU the most complete information on every class of cosmetic—and to answer every question about cosmetics—this author has included a wealth of valuable material found in no other book. There are full details on colors, preservatives, anti-oxidants, raw materials, machinery (especially for small scale operations) and all other practical topics so important to successful results. There are concise, comprehensive explanations of all basic scientific principles bearing upon cosmetics—from bacteriology and mycology, from chemistry, inorganic, organic and colloidal, and especially from the physiology of skin, hair and scalp. This fundamental knowledge, plus the full benefit of the author's research experience in testing the value of cosmetic preparations, enables you to understand every detail of cosmetic production.

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A. M. A. and Vitamins

The American Medical Association is continuing its fight against self-medication with vitamins. Last month they widely publicized a report prepared by the Council on Foods and Nutrition and the Council on Industrial Health of the A. M. A. which report condemned the mass administration of vitamin pills or capsules to industrial workers in the hope of increasing their efficiency and productive capacity. And the A. M. A. had names of real companies to back them up when they included as contributors to the report such men as Dr. Leverett D. Bristol, medical director of the American Telephone and Telegraph Company, and Dr. Clarence D. Selby, medical director of General Motors.

The eminent Dr. Morris Fishbein, editor of the A. M. A. Journal, added his opinion of the report: "Available evidence does not indicate that any increased production secured by indiscriminate vitamin administration in industry is even sufficient to pay the price of the vitamin."

And so it goes and will continue to go as long as vitamins are out of the control of the medical profession. Now that vitamins are widely advertised and widely used by the layman, every sort of attack can be expected from organized medicine to discourage their use. This latest report again expresses the opinion that "A good diet can achieve all that vitamin preparations have to offer and more." But how to obtain this diet either as to variety of food or as to foods in which the vitamins are retained is not told. Perhaps we should all eat only those foods which are approved by the Council on Foods of the A. M. A., for surely, one way or another, the A. M. A. intends to control our intake of practically everything as far as they are able.

The report talks of the mushroom growth of the vitamin companies which "use all the arts of salesmanship" to promote their mass use by large industries.

But despite this latest attack, Lockheed Aircraft Corporation and North American Aviation are finding out for themselves what lies in this method of vitamin application. An experiment to last from six to nine months and to cost about $60,000 is being conducted for these companies by Dr. Henry Borsook, eminent biochemist of California Institute of Technology.

Operating under the aegis of the National Research Council,—which is contributing $30,000 to the project—Dr. Borsook and his staff are feeding 1,000 Lockheed and 300 North American employees individually prescribed doses of vitamins twice daily, at the beginning and end of their work shifts. The prescriptions are based upon physical and optical examinations and medical and diet histories of the participants, taken before the application of the vitamins. Workers are asked not to change their diets. In this experiment, the National Research Council, California Institute of Technology, the University of Southern California, and the Health Department of Los Angeles are all cooperating by lending research men, doctors, or equipment. Records are to be kept indicating how the workers' health, output, and morale are affected.

Further evidence of the value of vitamins has very recently been reported by Jerald G. Wooley and Dr. W. H. Sebrell, of the National Institute of Health in Washington. The report, the details of which appear in Public Health Reports, tells of experiments on mice which prove subseptibility to fatal infection with type I pneumonia germs is greater when the daily diet does not contain enough of vitamin B_1 and riboflavin. The mice were placed on short rations of the two vitamins for some little time, and then pneumonia germs were dropped in their noses.

Now Its Niacin

Nicotinic acid and nicotine acid amide have been given new official names by the Federal Security Administration, which has control of the Food and Drug Administration and the U. S. Public Health Service. The new names are "niacin" and "niacin amide." Federal Security Administrator Paul V. NcNutt ex-

plains that consumers have confused nicotinic acid with nicotine and that "unwarranted apprehension in the minds of the uninformed consumer" has resulted from the reading of the words "nicotine acid printed on the label."

Sugar and This Industry

The sugar rationing will have its effect upon this industry although this effect should not be severe. There should be plenty of sugar available for the medicinal branch of this industry. Those who might think of substituting saccharine for sugar,—if they can obtain the saccharine under present conditions—must realize that saccharine cannot be lawfully substituted for sugar since it might involve a change in the identity of a medicinal product and bring about deception in the sale. Also, even when it is properly used, its presence must be stated on the label.

Food and Drug Commissioner Walter G. Campbell says that "Since saccharine is chemically inert, it is the view of the Food and Drug Administration that even in the present emergency we should not deviate from the policy prevailing since the beginning of food and drug law regulation which is that the debasement of foods by the substitution of saccharine for sugar is adulteration. The fact that public attention is now directed to the importance of existing nutritional conditions emphasizes the need for reiteration of this policy. The same considerations apply to products subject to the drug provisions of the act where sugar has definite therapeutic value or is specified because of its nutritional value, and likewise in those instances where an official compendium specifies sugar and where substitution of saccharine would involve a change in identity."

With regard to the rationing of sugar to the soft drink manufacturers, the quantity which they are allowed to use during February is eighty per cent. of the quantity which they used in February, 1941. This gives them a generous allotment since 1941 was a particularly good year in all lines of business and was far ahead of 1940. Then in addition to the eighty per cent., these manufacturers are allowed to use whatever quantity of sugar is necessary to fill orders from the army and navy departments, American Red Cross, U. S. Maritime Commission, and for retail sales to army and navy personnel on military reservations, naval reservations, or naval vessels.

More Price Ceilings

OPA activity has increased with the greater number of shortages which are occurring, and now with the federal price law enacted to legalize its activities, still greater activity can be anticipated. Latest chemicals over which price ceilings have been established are: Aspirin, 40 cents per pound for U. S. P. powdered 80 mesh in large lots; citric acid, 20 cents per pound in carloads; ascorbic acid, $1.65 per ounce in 1,000 ounce tins; oxalic acid, 11¼ cents per pound in 100 pound lots; carbon tetrachloride, 73 cents per gallon for carload of 55 gallon drums in Zone 1, 80 cents per gallon in Zone 2, 94 cents in Zone 3, and 83 cents in Zone 4.

Price ceilings can be anticipated on many other products some of which are menthol, vitamin A, oil of peppermint, oil of citronella, and caffeine.

The price ceiling on borax has been raised one dollar a ton, and on boric acid two dollars a ton because of increased production costs verified by an investigation at the plant of the American Potash & Chemical Corporation.

Nose Drops Deleted

The Council on Pharmacy and Chemistry of the American Medical Association has dropped nasal inhalant preparations containing petrolatum—principally liquid petrolatum or mineral oil—from New and Non-official Remedies. This includes accepted products which contained one per cent. or less of Benzedrine or amphetamine, ephedrine, Adrenelin, Suprarenalin, or epenephrine, neosynephrin hydrochloride, and Chloretone or chlorbutanol.

This action was taken following a report published under the auspices of the Council which gave evidence to indicate that promiscuous use of oily nose drops, particularly those containing mineral oil, is dangerous from the standpoint of lipid pneumonia, and also that the oil might interfere with the normal function of the cilated epithelium of the upper respiratory tract.

The Council will retain in N. N. R. only those oily nose drops which do not contain mineral oil, pending the development of more positive evidence concerning the irritative properties of other types of oils.

Tin Cans Curtailed

Tin can use is curtailed for many products, according to a recent WPB order. The order affects tin cans for beer, baking powder, biscuits, candy and confectionery, cereals and flour, chocolate and cocoa, coffee, dog food, petroleum products, spices and condiments, and tobacco. Curtailment is to the extent that during February there can be manufactured, sold, or delivered only fifty per cent. of the total quantity of tinplate and terneplate cans used for these products during February, 1940. This is only the first step; a general order is to follow. Beer, coffee, and dog food are the largest users of tin cans. In 1941 beer cans alone used 1,600 tons of tin, which is more than was used for three of the major vegetables, beans, corn, and peas,—only tomatoes used more. Another 900 tons of tin went into coffee cans, 820 tons into dog food cans, 275 tons into oil cans, and 200 tons into tobacco cans.

Salvaging Tin

Tin from used collapsible tubes is to be salvaged by this industry with the cooperation of the wholesale and retail trades. The salvaging of tin collapsible tubes is important because these tubes are made of pure tin. The WPB has approved the plan, and, although the manufacturers who are working on the plan have not been promised by the WPB that they will be allowed to have all or even part of the reclaimed tin for their use, they are pushing the plan ahead vigorously merely for patriotic reasons. However, these manufacturers hope that conditions will be such that at least some of the tin can be diverted to their uses.

The tubes will be contributed by individuals who will bring them to the drug stores of the country. Wholesale druggists will collect these tubes from the retail druggists and ship them in not less than 100 pound lots freight collect to The Tin Salvage Institute, Long Avenue, Hillside, New Jersey. Such costs as are connected with the shipping, handling, and reclaiming of the tin are to be deducted from the value of the metal reclaimed and the balance is to be denoted to a nationally approved charity. Therefore, everyone contributing tubes or having anything to do with the program is not only recovering a vital metal necessary in the war effort, but they are also donating to this worthy charity.

Drug and cosmetic manufacturers are cooperating through the use of time in their radio programs, over thirteen national hookups now calling the attention of the public to this effort. The Tin Salvage Institute is a non-profit corporation under the direction of the Collapsible Tube Manufacturers' Association, Joel Y. Lund, of the Lambert Pharmacal Co., and president of the Packaging Institute, is chairman of the joint committee handling the project. Lee H. Bristol, of Bristol-Myers Co., is chairman of the operations committee. Retail representatives are: Donald S. Barnes, of the N.A.R.D.; Fred L. Griffiths, of the National Association of Chain Stores. Wholesale representatives are: E. L. Newcomb, of the N.W.D.A.; Ray Schlotterer, of the F.W.D.A. Tube manufacturers are represented by L. B. Platt, secretary of the Collapsible Tube Manufacturers' Association. Tube users representatives are: Lee H. Bristol, George MacGregor, of Colgate-Palmolive-Peet Co.; Charles Luckman, of the Pepsodent Company.

Alcohol Order Changed

The alcohol curtailment order has been amended so that the amount of alcohol that can be used for cosmetics is now fixed for the first quarter of 1942 at seventy-five per cent. of the amount used in the first quarter of 1941, and for subsequent quarters of the year the amount of that can be used is fixed at seventy per cent. of the quantities used in the corresponding quarters of 1941. Products on which this curtailment is ordered are: Hair and scalp preparations, bay rum, shampoos, face and hand lotions, body deodorants, toilet waters, perfume and perfume tinctures, toilet soaps (including shaving creams), mouth washes, tooth cleansing preparations, perfume materials and fixatives, rubbing alcohol, witch hazel, and deodorant sprays (non-body). The question of whether a manufacturer of cosmetics may apportion his alcohol among such of these products as he manufacturers in accordance with his own wishes, or whether the percentages must be applied definitely to each of his preparations by a comparison with the production of each preparation during 1941 is being reconsidered and a final ruling is expected.

Mercury Price Ceiling

A ceiling has been set upon prices of mercury from domestic mines which are located in California, Oregon, Washington, Idaho, Utah, Nevada, and Arizona, which fixes the maximum price which can be charged at $191 per 76 pound flask f.o.b. shipping point. These prices are equivalent to about $195.50 per flask at New York. The current price is about $198, Pacific Coast, or about $202.50 at New York. The ceiling prices are approximately the levels which prevailed from October 1 to October 15, 1941.

Opinions among users of mercury is that the ceiling has been set much too high and that mercury will sell at ten dollars or more below the ceiling quotation within two or three months. The government is now by far the largest user of mercury.

WPB Now

With Donald Nelson now in complete control of supplies for the war effort, the OPM has disappeared, and the War Production Board, or WPB, of which Mr. Nelson is the supreme head, supercedes it. Therefore, the old OPM is now part of the WPB with the same personnel. The Health Supplies Branch remains under the direction of William Bristol, who is still working on the amendment of the Health Supplies Rating Plan. Mr. Bristol had hoped to get a rating of A-2 for this plan, but this has been rejected. However, it is hoped there will be granted a substitute amendment giving a graduated rating of, perhaps, A-8 to A-2, which would be much better than the present flat A-10 rating. Mr. Bristol has not as yet been able to amend the plan to cover all medicinal preparations.

Zinc Oxide Cut Further

The zinc pool requirements for February were increased nine per cent. over January in an order which fixes the February at forty per cent. based on November, 1941 production. The zinc oxide pool for February is doubled from ten to twenty per cent.

Cellophane Cut More

Transparent cellulose windows used in face powder boxes are ruled out by an amendment of the cellophane order. And further, manufacturers are not allowed to subsitute for the cellophane formerly used, any thicker material which might not be considered included in the order covering merely cellophane which has a guage of less than 0.005 inch. Manufacturers are allowed to use up such supplies as they had on hand prior to January 8. Also material in the hands of suppliers, and cut to size prior to January 8, is also exempt from the order. Off-grade or waste cellophane or similar transparent materials are exempt, provided that producers of such material report by the tenth of each month the quantities of such materials sold or delivered.

Less Lead for Tubes

Users of tin collapsible tubes were encouraged some time back to swing to lead tubes if this was possible. Shaving cream manufacturers swung almost completely to tin coated lead tubes. Collapsible tube manufacturers had worked out an alloy that used very little tin and a rather large amount of lead, this alloy being suitable for use in packaging tooth pastes and similar products that might be taken internally. The trouble with this development is that an order was issued the latter part of last month which reduced the quantity of lead that can be used for collapsible tubes during the next quarter to ninety per cent. of the amount used in the third quarter of 1941. So any switch to lead is out of the question.

Hair Tonic

An opinion has been advanced that talks with officials of the Federal Trade Commission leads to the conclusion that the Commission will not object to the use of the words "hair tonic" in the advertising of a preparation which can be considered mildly counter-irritant, and thus would cause stimulation of the superficial circulation of the scalp. This stimulation must be caused by the action of the product and must not depend upon the massage which might accompany application of the product.

High Chemical Rating

The chemical industry has been given a top rating of A-1-a to deliveries of materials to repair actual breakdowns, A-1-c to materials needed to avert stoppages, and A-3 to procurement of materials for other repairs, maintenance, and operation. These high ratings indicate that the WPB recognizes the vital part which the chemical industry is playing in the war effort and in essential civilian production. Before applying any of the ratings, a manufacturer must file with the chemical branch of the WPB a statement setting forth the required information, and must be assigned a serial number under the order. Serial numbers will be assigned only to manufacturers whose products are being used for the war effort or for essential civilian purposes.

Mercury Use Cut

Use of mercury has been restricted by the WPB. Use of mercury to the extent of fifty per cent. of former consumption from January 15 to March 31, and complete stoppage of use of mercury after that date is ordered for turf fungicide, dental plates using a mercury compound for coloring, special processed felt for hats, lumber treating chemicals, worm and marine growth killing paints, household thermometers, and silent wall switches.

Harsh Tobacco?

Makers of mentholated cigarettes are reporting that they expect no interruption in production due to the fact they have laid in large stocks of menthol. Let them not be too sure that production will not be interrupted because the WPB might make up its mind any day that the menthol that the companies have should be used for drugs instead of for cigarettes. The tobacco manufacturers are in a particularly vulnerable position as to many of their requirements although we have no desire to see them stripped of any of their needs. But with a sugar shortage and rationing before us, it is interesting to note that tobacco manufacturers use not only large amounts of sugar but also at least sixty-five per cent. of this country's production of saccharine. They are also large users of aloin, coumarin, vanillin, balsams, and other raw materials that are used for medicinal purposes. Perhaps smokers of tobacco products will have to take their weed less slightly flavored, if not entirely raw.

Conventions

The conventions usually held by associations in this industry are expected to be held as before with perhaps less emphasis upon the entertainment features. The two famous resort hotels,—the Greenbrier at White Sulphur, and the Homestead at Virginia Hot Springs,—expect to be ready by Spring despite the fact that they have been housing the German and Japanese diplomats who were in this country when war broke out.

Vitamin A Curtailment

Reduction in the quantity of vitamin A units in vitamin capsules is now official having been ordered by the WPB on February 9. This order limits the amount of vitamin A units in multi-vitamin capsules to 5,000. And this 5,000 units restriction not only applies to the amount that can be contained in one capsule, tablet or pill, but also applies to the largest daily dosage recommended on the label or directions for use. This restriction does not apply to preparations that contain only vitamin A, or vitamins A and D where the recommended daily dosage is 25,000 units or more of vitamin A. Neither does the restriction apply to vitamin preparations contained in the U.S.P. or N.F. The intent of the order apparently is to apply the restriction of use of vitamin A only in those preparations which are sold for self-medication. For this reason, the higher potency products containing only vitamin A, or vitamins A and D, as well as the official products are exempt. It is believed that these higher potency and official preparations will be taken under the direction of a physician.

In addition to restricting the potency of these vitamin products, the WPB has also ordered that use of fish livers oil in animal feeds be discontinued. Since feed manufacturers use fish liver oil because of their content of vitamin D, they can use the synthetic product and thus the vitamin A present in these oils will be conserved for human consumption. Under the term "vitamin A" as used in the order, also included are the pro-vitamins such as carotene and cryptoxanthin.

Glycerine Shortage

The greatly increased demand for glycerine for the manufacture of explosives is expected to result in an all-out effort to increase production of glycerine, and even at that a shortage is anticipated by 1943. To increase glycerine production, soap manufacture will be stepped up as sharply as possible since glycerine is a by-product of soap production. From the matter of importance during the war effort, glycerine becomes the major product, and soap the by-product.

Supplies of oil-yielding oils and fats are particularly important in this effort. And now that coconut oil from the Philippines is not being received, and olive oil supplies from Europe are practically things of the past, new sources are being sought to make possible increased production. Supplies of the necessary oils and fats are being sought in Latin America and Africa. Further, a salvage campaign to collect and extract glycerine from food fats, grease, lubricants, and table scraps is expected to be undertaken. It is estimated that at least ten per cent. of the 38,000,000 pounds of grease used in this country last year represents recoverable glycerine. Further civilian curtailment of the use of glycerine may enable the war effort to have sufficient glycerine during 1942.

Agar Under Priority

The WPB acted on February 9, to place agar agar under priority control. The order froze all stocks of agar in this country, and holders of more than fifty pounds were required to report to the WPB within fifteen days of the order what their holdings are. Since agar came principally from Japan with small amounts received from China and Java and a small amount also produced on our Pacific Coast, some action was apparent for some time.

French Perfumes and F.T.C.

Interesting is the decision of Federal Judge August N. Hand, of the Second Circuit, in the case of Rigaud and Fougera. This is the case in which Rigaud was ordered to drop all indications in their advertising and labeling that their products are French in any respect. It will be recalled that no French words or phrases were to be used unless an English translation accompanied them. It must be recalled that Establissements Rigaud, Inc., is an American firm owned by the people in France who own Rigaud in that country. In ordinary times, perfume concentrates are imported from France and the manufacture is completed here. The company is under the direct supervision of its French owners, and therefore there seems to be a good reason for considering the products of French origin to a considerable extent. But the Federal Trade Commission thought otherwise and issued a cease and desist order. This order was appealed to the Circuit Court with the result that a decision was handed down on February 4, of this year.

The cease and desist order prohibited the following things:

"1. Representing, through the use of the term 'Paris,' or 'Paris, France' or any other terms, words, symbols or picturizations indicative of French or other foreign origin of such products, or in any manner that perfumes which are made or compounded in United States are made or compounded in France or in any other foreign country; provided however that the country of origin of the various ingredients thereof may be stated when immediately accompanied by a statement that such products are made or compounded in the United States.

"2. Using any French or other foreign terms or words, except as provided in paragraph (3) hereof, to designate, describe or in any way refer to perfumes made or compounded in the United States, unless the English translation or equivalent thereof appears as conspicuously and in immediate conjunction therewith.

"3. Using the terms 'Un Air Embaume,' 'Rigaud,' 'Igora,' or any other French or other foreign words or terms as brand or trade names for perfumes made or compounded in the United States without clearly and conspicuously stating in immediate connection and

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WHOLESALE INDICTMENT

THE famous investigation of the drug and cosmetic business which has been under way for some time past has resulted in the indictment of many wholesalers who are members of the National Wholesale Druggists Association and of individuals connected with the Association and with the wholesale companies under indictment. These indictments come as the result of the investigation by Thurman Arnold and his staff. It will be recalled that manufacturers were ordered to send to Washington enormous amounts of their records some time ago. These were carefully gone over by the investigators. Calls were made by investigators upon manufacturers and others in an attempt to uncover evidence that might lead to an indictment.

The N.W.D.A. has two hundred and eleven wholesale members. But of these memberships, sixty-five are McKesson & Robbins memberships for all of their branches. Also some other firms have more than one wholesale house so they have more than one membership in the Association. For example, the Southwestern Drug Corporation has five memberships, and Meyer Brothers Drug Company has three memberships. Still other houses that are not under indictment have two, three, and four memberships, respectively. When these multiple memberships are eliminated, there are actually one hundred and thirty-eight firms represented in the wholesale membership. The government has indicted twenty-three of these one hundred and thirty-eight companies. These twenty-three companies that have been indicted, hold ninety-three of the two hundred and eleven wholesale memberships of the Association. Therefore, while only seventeen per cent. of the companies holding memberships have been indicted, these companies hold forty-four per cent. of the memberships in the Association, and must do approximately half of the business done by the members of the Association.

The companies and individuals indicted are: The National Wholesale Druggists Association; E. L. Newcomb, executive vice-president and secretary of the N.W.D.A.; Robert Morrisson, Portland, Me., formerly assistant to Dr. Newcomb; Lee W. Hutchins, Grand Rapids, Mich., president of the N.W.D.A., and of the Hazeltine & Perkins Drug Company, which is also indicted; Coffin-Reddington Company, San Francisco and Henry J. Haaf, its sales manager and director; Davis Brothers, Inc., Denver, and John C. Davis, president and general manager; Des Moines Drug Company, and Moses E. Sherman, president; J. W. Edgerly & Co., Ottumwa, Iowa, and Theodore J. Inskeep, vice-president; Ellis-Bagwell Drug Company, Memphis, and Robert R. Ellis, president; Gilman Brothers, Inc., Boston, and Charles A. Loring, vice-president and treasurer; Justice Drug Company, Greensboro, N. C., and Pearly A. Hayes, president and general manager; D. Kaltman & Co., Inc., Jersey City, and David L. Kaltman, president; Kauffman-Latimer Company, Columbus, O., and George H. Kauffman, president; Kiefer Stewart Company, Indianapolis, and A. Kiefer Mayer, first vice-president; Charles Leich & Company, Evansville, Ind.; I. L. Lyons & Co., Ltd., New Orleans, and I. L. Lyons, president; McKesson & Robbins, Charles F. Michaels, chairman of the board, B. H. Badanes, vice-president, Leo Lanigan, George V. Doerr and Thomas O. Duff, directors, and Richard L. Hanson, vice-president and general manager of the Providence division of McKesson; Meyer Brothers Drug Company, St. Louis, Edward P. Shrader, secretary; Mooney-Mueller-Ward, Co., Indianapolis, and William J. Mooney Jr., president and sales manager; Schieffelin & Company, New York, and Charles C. Caruso, third vice-president; Smith, Kline & French, Inc., Philadelphia, and J. Mahlon Buck, president and general manager; Southwestern Drug Corporation, Dallas, and James M. Penland, president and general manager; Standard Drug Company, Meridan, Miss., and Ernest A. Morrison, president and treasurer; Strother Drug Company, Lynchburg, Va., and James C. Holloran, secretary; Towns and James, Inc., Brooklyn, and Warner James, vice-president; Yahr-Lange, Inc., Milwaukee, and Herbert W. Adkins, executive vice-president.

The investigation of the drug trade resulted in indictments being returned against the National Wholesale Druggists Association and twenty-three of the companies that are members of the Association, including McKesson & Robbins with their sixty-five memberships.

The charges against these firms and individuals are that they conspired to violate the Sherman Act by fixing wholesaler profit margins on drugs, and other products which they wholesale. The indictment states that the two hundred and eleven members of the N.W.D.A. do eighty per cent. of the wholesale drug business of the country. Kenneth Kimble, special assistant to the U. S. Attorney General, who conducted the investigation, states that the indictment is the first alleging use of fair trade contracts in a manner not contemplated by the Miller-Tydings amendment to the Sherman Act nor by the fair trade laws of the various states.

The indictment charges that the defendants conspired to maintain profit margins by fixing purchasing and resale prices. It is charged that the N.W.D.A. circulated literature among its members purporting to analyze their handling and operating costs and listing purchasing and selling prices that they should demand. It is charged that the defendants forced manufacturers to enter into one of these three arrangements: designating wholesalers as "del credere factors" to sell to retailers at stabilized prices; a so-called voluntary stabilization plan under which the manufacturer refused to deal with wholesalers selling below the stipulated levels; and a fair trade contract plan, under which a manufacturer and wholesaler agreed upon minimum wholesale selling prices in a manner not contemplated by the Miller-Tydings Amendment. The defendants are charged with compelling manufacturers to sell only to wholesalers who would abide by the stabilizing arrangements. It is also charged that the defendants threatened recalcitrants with "lack of cooperation" in the resale of their products.

It has long been the thought in this industry that the investigation conducted by the Attorney General's staff was aimed at this particular group of wholesalers. Records of manufacturers were ordered sent to Washington for the purpose of attempting to get evidence against the wholesalers from these records.

Harold Harper, Harper & Matthews, counsel for the N.W.D.A., made the following statement:

"The indictment charges that the National Wholesale Druggists Association has used the State Fair Trade Acts and the Miller-Tydings amendment to increase wholesale drug prices and to secure a greater margin of profit for its own members.

"This is simply not so. The association has welcomed the fair trade laws, which have now been enacted in forty-five States, and has encouraged manufacturers of trade-marked articles to take advantage of their provisions because it believes that the stabilization of wholesale and retail prices by the manufacturers results in more efficient and less wasteful distribution and elevate competition to the plane of a contest for the public's favor between the products of the different manufacturers, which is what it should be.

"While the indictment acknowledges the existence of fair-trade legislation, it leaves so small a scope for its operations that the policy which it represents would emasculate fair-trade legislation and return the drug industry and others to the jungle of price-cutting, with the inevitable elimination of many small useful businesses.

"Without in any way conceding the facts alleged in the indictment to be true, and they are not, it really represents a dissent from the policy of Congress and the State Legislatures in enacting the fair trade laws.

"The National Wholesale Druggists Association will see this fight through to a finish."

W. J. Murray Jr., president of McKesson & Robbins, Inc., made the following statement:

"We have been advised that some twenty-three members of the National Wholesale Druggists Association, including McKesson & Robbins, Inc., have been indicted by a Federal grand jury in New Jersey for an alleged violation of the Anti-Trust Act. McKesson & Robbins, Inc., feels that an investigation will show that it has not violated the anti-trust laws."

LOCAL USES OF SULFONAMIDES

By M. A. LESSER

ALTHOUGH the sulfonamides have been employed in medicine for nearly a decade, it is only within the last three years that the local use of these drugs, as contrasted with their oral administration, has come into general use. In that comparatively short time, and especially during 1941, numerous reports have been published, citing the excellent results obtained and the many advantages accruing from such direct topical application to the wound or infected area itself.

These reports show that the sulfa drugs, particularly sulfanilamide, are now extensively employed locally not only for compound fractures, clean surgical wounds, contaminated industrial or war wounds, burns, ulcers and carbuncles, but also in dentistry, within body cavities and organs, in the treatment of respiratory infections, on the eyes, and in the therapy of many dermatological conditions. Moreover, the field of usefulness for the local application of these chemotherapeutic agents is constantly expanding.

The need for such use arose from the fact that many individuals cannot tolerate these drugs orally and display such symptoms as nausea, headaches, anorexia, and sometimes, skin reactions. Then, too, many authorities[1, 2] felt that it was unnecessary to saturate the entire system, thus exposing the patient to alarming and possibly dangerous toxic symptoms, to obtain a purely local effect.

Local application would hardly have been feasible, however, had it not also been established that the sulfonamides were extremely effective when used in this manner. The interesting point is that the sulfa drugs are not bactericidal, but rather are bacteriostatic and act by inhibiting the dangerous organisms. It is now generally believed that local sulfonamide therapy attenuates the virulence of the bacteria, prevents a spread of the local infection into the surrounding tissues and permits or stimulates the organic defenses to act against the infectious organisms.[3, 4, 5]

Key and Burford,[6] for example, have found that a saturated solution of sulfanilamide crystals in operative wounds inhibit the growth, not only of susceptible strains of streptococci, but of staphlococci and gas bacilli and other organisms not susceptible to dilute solutions of the drugs. The powder remains on the wounds for about forty-eight hours, saturates the fluid in the wound and diffuses into the surrounding tissue. It is their impression that the wounds of their patients healed firmly in approximately the same time needed for similar wounds without sulfanilamide implantation. Their work indicates that this local use of sulfanilamide in clean wounds does not interfere with healing.

According to Crile,[7] there apparently is little or no danger of overabsorption of the sulfonamide drugs when they are implanted in wounds or sprinkled on raw surfaces. Prinz,[3] summarizing much of the current information, observes that, "Apart from a few isolated cases which are probably due to hypersensitivity to the sulfa drugs, no toxic reactions have been reported from their topical application, because the rate of absorption is very low. At the focus of infection, however, the highest possible concentration of the drug is obtained. It is obvious, therefore, that the topical application is preferable to the internal one wherever possible, because it avoids the disagreeable side-effects which so frequently accompany the internal use. Moreover, if the chemical is applied directly, the concentration at the point of infection will be higher than if the drug is given internally."

Sulfonamides are applied in a variety of ways: as powders or crystals, in solutions, as pastes, or in one of several ointment bases. Some workers,[4, 8] especially during the earlier days, have felt that oral administration should accompany local application, and in some instances this is necessary. Other workers,[9] however, have abandoned the oral prophylactic administration of sulfanilamide, because they feel that high local concentrations of the drug are far more effective. British investigations on the chemotherapy of gas gangrene[10] have shown that when an adequate amount of a sulfonamide (sulfanilamide, sulfathiazole and sulfa-

Sulfonamide drugs have become important for local application to a degree which is rapidly becoming as great as the internal application. During the present war effort, local application might be of more value than internal treatments.

pyridine) is given locally, it is more effective than oral treatment and there is no apparent advantage in supplementing local by oral therapy.

Undoubtedly, the treatment of open wounds and lesions, whether of surgical, accidental, military or infectious origin, has been the most important indication for the local use of sulfonamides. During the last few years, a tremendous literature has been made available attesting the importance of this method. One of the first and unquestionably one of the most important papers was that of Jensen, Johnsrud and Nelson published in 1939.[11] These workers, after careful clinical and laboratory investigations, reported that when sulfanilamide crystals were placed in compound fracture wounds after debridement and before closure, infection was remarkably reduced. In their series, thirty-nine sulfanilamide-treated compound fractures healed without infection, while infection occurred in 27 per cent. of ninety-four fractures treated by similar methods but without sulfanilamide.

These workers explained these most unusual results in a condition that is particularly prone to infection by pointing out that, while the systemic administration aims at a sulfanilamide blood and tissue fluid concentration of from 10 to 15 mg. per 100 cc., the local implantation produces a concentration of about 800 mg. per cent. in the contaminated area and maintains this concentration over a period of about thirty-six hours.

More than a year later, in commenting on this work, an editorial in the J.A.M.A. stated:[12] "The method is rapidly becoming a most important addition to the treatment of wounds of the type most frequently met in industrial surgery and in military surgery and is being rapidly adopted in surgical practice here and in England." The local use of sulfonamides is now a standard procedure in treating acute and chronic wound infections.

Perhaps the most significant and, to-day, the most pertinent use of the sulfonamides is in the treatment of war wounds, whether of soldiers or civilians. Colebrook[13] in a paper on the chemotherapy of war wounds had clearly indicated the value of such therapy, when he pointed out that hemolytic streptococci were responsible for 70 per cent. of all the deaths due to infections of wounds. Most strains of these organisms are susceptible to the action of the sulfa drugs.

These compounds have already proven their value in the treatment of war wounds. Key and Burford[14] are of the opinion that had the casualty wounds during World War I been rapidly debrided, sprinkled with sulfanilamide crystals, sutured and the reduced fractures immobilized in casts or splints, the large majority of them would have stayed closed without infection and the soldiers could have been sent directly back to America from the field hospital. This method, they feel, would have brought about a great saving in hospital personnel and materials, and the effect on morale would have been unlimited.

Matthews[15] reports that chemotherapy has been proven of inestimable value in air raid casualties. Liberal spraying of all open wounds such as glass cuts and compound fractures has proven most effective. He says that all raw surfaces are now automatically sprayed with sulfanilamide whether they are to be sutured or left open, and it is quite safe to produce a thin white covering, no matter how extensive the injured area. He also reports the local use of the drug to combat gas gangrene. In these cases sulfanilamide is also given by mouth and antigas gangrene serum is given intramuscularly.

Sulfanilamide appears to be the drug of choice with most surgeons. Sulfapyridine, and especially sulfathiazole are also widely used, and there are potentialities for sulfadiazine.[16] "However, as a matter of practical usage," says Crile,[7] "the local concentrations of the drugs are so high that the cheaper sulfanilamide appears to be nearly as effective as the much more costly sulfathiazole. Accordingly, we prefer to use sulfanilamide locally in the prophylaxis and treatment

of wound infections except in cases of stubborn staphlococcic infections."

However, experiments in the treatment of gas gangrene indicate that sulfathiazole is more effective than sulfanilamide, particularly when there has been delay in the application of chemotherapeutic agents.[17] Hawking,[18] after similar studies, found that the largest number of survivors after induced gas gangrene occurred with animals treated with a mixture of two parts of sulfanilamide and one part of sulfathiazole.

Sulfonilamide powders are applied by spraying, dusting, or sprinkling to obtain an even coating over the wound area; a blower or insufflator being preferred to get even and thorough distribution. The most important considerations for making such therapy effective, according to Colebrook and Francis,[19] are: (a) complete cleansing of all debris, (b) immediate application of the powder before a thin film of exudate has time to dry, and (c) retention of moisture by proper over-coverage.

However, Herrell and Brown,[20] of the Mayo Clinic believe that the best method of administering sulfanilamide locally is by means of a thick suspension, prepared by adding 30 grains (2 Gm.) of the powdered drug to 100 cc. of an 0.8 per cent. solution of sulfanilamide in physiologic saline solution. They found that, when instilled into either open or closed wounds, this suspension usually yields satisfactory results.

For the irrigation of wounds, Mayo and Miller,[21] also of the Mayo Clinic, employed a solution made by heating physiological salt solution to the boiling point and adding sulfanilamide to make a saturated solution. Flushing with hydrogen peroxide prior to irrigation with the sulfanilamide solution was found to be a useful adjunct. Since then, Schneider[22] has reported that first washing wounds with hydrogen peroxide increases the local action of sulfanilamide. He used a suspension of powdered sulfanilamide in hydrogen peroxide for introduction into wound sinuses. By this procedure, oxygen availability was increased and the toxic effect of the sulfa drug on the bacteria was potentiated.

For irrigation or the continuous drip method of treating wounds, Beling[23] employed a saturated solution of sulfamethylthiazole powder or of sulfathiazole in normal physiological saline solution or distilled water.

Sulfonamide powders or their solutions have not been restricted to external, local application, but have also been employed in various body cavities. For example, it is now quite common practice to introduce sulfonamide compounds directly into the peritoneal cavity in cases of acute appendicitis, peritonitis, operations on the large bowel and similar conditions.[24, 25, 26, 27, 28] Here again, sulfanilamide appears to be the favorite drug. In addition to the clinical reports, recent laboratory studies have established the innocuous nature of sulfanilamide on the peritoneum.[29]

Recent laboratory studies also indicate that powdered sulfonamides can be used intracranially.[30] These drugs may therefore prove of value in the local treatment of brain injuries.

From time to time, the question has been raised as to whether it is safe to use sulfonamides locally without previous sterilization.[31] The general concensus of opinion based on wide experience appears to be that such sterilization is unnecessary.[7, 20] However, where this procedure is desired, sulfanilamide may be sterilized with dry heat for thirty minutes at 120° C.[26, 28] Mueller,[26] however, says that sulfanilamide should not be autoclaved. Other sulfonamides may require longer periods at 140° C.[32] Solutions of sulfanilamide that have become discolored after sterilization should not be used, nor should discolored sulfanilamide crystals ever be employed for local use.[33]

The external use of sulfonamide powders do have certain disadvantages, particularly a tendency to cake or form crusts on wounds. For these reasons and because of greater convenience of use, a variety of sulfonamide pastes and ointments have been suggested. The British publication, *Chemist and Druggist*,[34] suggests that sulfanilamide pastes for external use can be made by incorporating 5 per cent. of the powdered drug in a base consisting either of equal parts of zinc oxide and liquid petrolatum or of equal parts of iodoform and liquid petrolatum. Where an emulsion is required, the following has been suggested:

Powdered sulfanilamide	**175 grains**
Cod liver oil	**4 fl. oz.**
Oleic acid	**36 minims**
Solution of calcium hydroxide, to make	**8 fl. oz.**

When the use of an ointment is indicated for office treatment of small wounds and infections, Long and Dees[35] use equal parts of thoroughly mixed sulfanilamide crystals and hydrous wool fat.

In response to an inquiry for an ointment base for sulfanilamide, the J.A.M.A.[36] presented a formula for making a non-greasy, non-toxic, non-irritating, smooth ointment that could be used not only on surface wounds, but also on mucous membrane surfaces such as the conjunctiva, sclera and cornea of the eye. The ointment is made as follows: (a) Dissolve 10 parts of sulfanilamide in 25 parts of nearly boiling water; filter. (b) To 4 parts of sodium alignate add 75 parts of boiling water and then strain the resulting mucilage through fine gauze. Mix the sulfanilamide solution and the sodium alignate while hot, and stir until cool. (c) Add 16 parts of anhydrous wool fat, 1 part of sodium chloride dissolved in 4 parts of water, and 78 parts of white petrolatum base to the sulfanilamide-sodium alginate combination and mix until smooth.

In a later issue,[37] it was said that sulfathiazole cannot easily be incorporated in this ointment base. Cod liver oil or hydrous wool fat seem to be more satisfactory for incorporating this drug.

After extensive clinical study on a large number of cases with a wide variety of conditions including operative wounds, burns, compound fractures, ulcer and traumatic wounds, Veal and Klepser[38] developed a sulfanilamide-allantoin ointment which was claimed to have certain advantageous qualities. In this ointment is combined the bacteriostatic effect of the sulfa drug with the excellent stimulating effects of the allantoin on non-healing wounds.

The ointment itself consists of 10 per cent. sulfanilamide, 2 per cent. allantoin and 0.5 per cent. chlorobutanol in a greaseless base, the base used being a glycerinated stearic acid ointment with triethanolamine. The sulfanilamide-allantoin ointment is not used at once, but applied after routine treatment, which includes the daily application of fresh sulfanilamide powder until the purulent exudate ceases and the infection appears under control. After this, the ointment is substituted for the powdered chemical.

Sulfonamide ointments and other preparations have also been used in the treatment of burns. However, this phase of sulfa drug usefulness was reviewed in the January issue of THE DRUG AND COSMETIC INDUSTRY. Here was discussed Gower's treatment of fresh burns with scarlet red bandage and moist sulfanilamide dressings,[39] Pickrell's spray consisting of 3 per cent. sulfadiazine in 8 per cent. triethanolamine,[40] and the soluble sulfaonamide-glycerine paste of Robson and Wallace.[41]

Another growing field of usefulness for the sulfa drugs is in the treatment of dermatological conditions. Lain,[1] for example, obtained excellent results by the use of sulfanilamide in glycerine. The solution is easily made by adding 4 to 8 Gm. of powdered sulfanilamide to each 30 cc. of slightly warm glycerine. It is applied with a cotton swab or with the fingers to the affected areas two or three times daily without bandaging. He states that this preparation "has proved so successful and gratifying that it has now come to be used in routine treatment in the state university clinic and in the private practice of my associates and myself in all cases of impetigo, acute infectious dermatitis of the ears, scalp or feet, coccigenic sycosis, folliculitis, septic ulcers and other streptococcic and staphlococcic infections."

Lain says that he had tried incorporating sulfanilamide in other bases, including some of the newer water-soluble ointment bases. However, he found that none of these preparations gave such rapid and satisfactory results as the solution of sulfanilamide in glycerine.

This last observation is largely confirmed by the findings of Locatelli and Bowden.[42] In a series of comparisons of sulfanilamide powder alone and in various media; including oily media, an ointment base, and glycerine, it was found that the activity of sulfanilamide is greatest when dispersed in glycerine and least in the ointment base. A 30 per cent. dispersion of sulfanilamide in glycerine proved even more active than the sulfa powder alone.

Quite recently, Keeny and his associates[43] prepared a 5 per cent. sulfathiazole ointment for dermatological use by suspending finely powdered sulfathiazole, which had been sifted through bolted cloth to remove large crystals, in equal parts of hydrous wool fat and vanishing cream. Tested on sixty-nine patients with various cutaneous affections, the ointment appeared to be efficacious and adult eczema, seborrhic dermatitis, impetigo, acne vulgaris, bacterial folliculitis and furunculosis. Thirty-five patients with acute vesicular poison ivy dermatitis, thirty-three patients with cuts, and four patients with small burns also received local treatment with the sulfathiazole ointment. In each case, the lesions healed without infection.

Other dermatologists have used other combinations. Sams and Capland[44] report the use of 10 per cent. sulfathiazole in cod liver oil ointment in the treatment of common skin conditions such as impetigo and related ecthyma and pyoderma. After reviewing the work of others in treating skin conditions by the local application of sulfonamide compounds, Combes and Canizares[45] report that they treated a few patients with impetigo by the use of 10 per cent. sulfanilamide in olive oil and hydrous wool fat. The conditions were cured in four to seven days. Several patients with chancroid treated with local applications of powdered sulfanilamide seemed to respond favorably.

Gynecological affections have also responded to local sulfonamide therapy. Finding that the oral administration of sulfonamide for the treatment of acute gonorrhea in women had little if any value, Bickers[46] tried insufflation of sulfonamide powder. This method had to be discarded because of the tendency of the powder to cake in the vaginal vault and therefore did not come into contact with the infected areas. To overcome this difficulty, the sulfonamide was then incorporated in a boroglyceride suppository, using 20 grains of the sulfonamide and 10 grains of lactose in the suppository. With this procedure, Bickers was able to report that such local therapy probably has real value in the prevention of complications and in the cure of this infection.

Instillation in the form of a 25 to 50 per cent. solution, made alkaline by adding sodium bicarbonate, sulfanilamide was effective in the treatment of gonorrhea in children. Excellent results were obtained in ten of twenty girls under ten years of age who completed treatment.[47] The local use of sulfathiazole in fourteen cases of cervicitis resulted in nine cures and five improvements in leukorrheal and other vaginal discharges, together with relief of pain.[48] Solutions of

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COSMETIC SUBSTITUTIONS

By JOSEPH KALISH

War shortages have affected consumers to date in only few instances, but cosmetic manufacturers have felt the pinch for some time. Unquestionably, raw materials will become increasingly tight and eventually some thought to be entirely essential will become virtually unobtainable.

With the imposition of a blockade on all of Continental Europe, supplies of many essential oils and perfume ingredients from that source were sharply curtailed. Some compounders built up stocks that they hoped might be adequate; others began to lay emphasis upon the development of synthetic mixtures. A long war, with no quick end in sight, has led to the depletion of stocks of natural oils while the global war has now cut off those natural raw materials which are the basis of a surprising number of so-called synthetic aromatics. Look for a reformulation trend based very largely upon synthetics made from domestic chemical and natural raw materials.

The specially denatured alcohol formulas utilized by cosmetic and perfume manufacturers are being drastically curtailed, and no one can well quarrel with priorities for smokeless powder manufacture. Known substitutes, such as isopropyl alcohol are just as short as ethyl alcohol, and glycol derivatives of high general solvent power usually do not evaporate rapidly enough to act as satisfactory substitutes for alcohol. In a few instances, however, these glycol compounds, when obtainable, can be used. Cosmetic uses of alcohol, as in cream preparations, can be avoided often enough by comparatively simple reformulations. It is in perfume and toilet water combinations that the high solvent power of alcohol combined with its rapid evaporation leads to difficulty in attempted replacement. Nevertheless, qualified research organizations will do well to look into the matter of water soluble perfume combinations making possible the practically complete elimination of solvents for essential oils. The use of terpeneless or other types of known oils requiring less alcohol for complete solution is a step in the right direction. More important, however, are those mixtures in which insoluble oils are combined with special soaps and other emulsifying agents to make transparent products which may be extensively diluted with water. There is no obvious reason why properly formulated mixtures of this type may not satisfactorily replace present alcoholic solutions.

Glycerin, so often thought to be an indispensable ingredient in cosmetics of many different forms and applications, can be quite satisfactorily replaced by glycols or glycol ethers, which are often no easier to obtain. Sorbitol solutions, however, have water-holding and skin softening powers quite similar to those of glycerin and in some respects are even more suitable for cosmetic use.

In some instances, as in the case of talc, the same material must now be obtained from a more readily accessible source. The Italian and French product have been replaced by materials from India and Manchuria. Manufacturers who were wise enough to switch at once to the high quality American grades have little need to worry about further changes.

Ozokerite, ceresin, and similar high melting mineral waxes are more than adequately matched by high melting amorphous waxes now being produced by several petroleum refiners. These waxes range in color from

With more and greater shortages of essential raw materials looming on the horizon, this article is most timely. This is not the last that we shall present on this subject, as we expect to keep up with developments resulting from the war effort.

very light yellow to black and melt as high as 180° F. They have notably high oil-holding power and have a micro-crystalline structure assuring creams free from grittiness due to crystallization of wax.

Within recent years a great variety of hydrogenated fats and oils have been made available for cosmetic use and should be investigated where supplies of similar natural materials show signs of curtailment.

Peanut oil is indentical in its chemical constants to olive oil. It may well replace other imported vegetable oils as they become scarcer.

Imported gums also occupy valuable shipping space which may be more urgently required for other commodities. Among domestic gum materials that will well repay intensive investigation are certain types of prepared gelatines, alignates, pectins, and manufactured methyl cellulose. The last is a water soluble cellulose ether that is entirely stable and easily made into mucilages with many desirable properties.

Absorption bases, often in the past dependent upon imported active materials, are now being extensively produced here from domestic raw materials. It is not too difficult, where necessary, to formulate your own absorption base from fatty alcohols, esters, and cholesterol derivatives. Finally, it is quite possible to revert to lanolin in a formula that was originally based upon this natural product.

Potassium and boric acid compounds are no longer easily obtainable and their use may be found to be less essential than thought. As an example, vanishing creams based upon potassium stearate are quite readily duplicated by the use of a mixture of sodium hydroxide and an organic emulsifying agent. Triethanolamine may be replaced by an amino glycol which produces a cream that stays white permanently. The principle behind the use of borax in combination with beeswax is the formation of a sodium soap of the free fatty acid in the wax along with the liberation of boric acid to act as a buffer and keep alkalinity at a low level. Both of these requirements are easily fulfilled by the use of other alkaline salts, especially certain phosphates. Disodium phosphate has a pH in solution of 9.0 and tetrasodium pyrophosphate has a pH of 10.2. Both of these compounds will form sodium salts with free fatty acids and liberate phosphoric acid as a buffering agent. In addition, the phosphates occasionally exhibit antioxidant power.

Containers represent one of the most pressing problems of the day. Although there seems to be no shortage of glass, difficulties are increasing in the obtaining of both metal and plastic caps. Shortages of lipstick containers, metal and plastic, are being met, to an extent, by the promotion of refills. Tin tubes may be greatly limited and tin coated lead tubes will not always be acceptable for cosmetic applications. Manufacturers of containers and closures, however, are not pleased by the prospect of losing business that it is at all possible to get and they have embarked upon extensive programs of research for substitutes, some of which are beginning to bear fruit.

Experience has shown, however, that for the individual manufacturer, shortages do not exist until all possible sources of supply for a wanted item have been thoroughly checked and found to be wanting. Time and again products thought to be extremely scarce have been found in abundant supply in the hands of suppliers who had not previously been asked.

COSMETIC ASPECTS OF NUTRITIONAL DEFICIENCIES

By L. STAMBOVSKY

THERE is not a grain of truth in that time-worn axiom, "Beauty is but skin deep." A peaches and cream complexion, colorful lips, dazzling teeth, lustrous hair, flashing eyes, clean scalp—these are visual barometers that all is well in the deeper recesses of the body. And why or by what power does the female possessing these virtues command such irresistible charm? For the answer we must consult nature's "Design for Living," especially the chapter entitled, "Survival of the Fittest." The law of the jungle is subtly but effectively applied whether we subscribe to this credo or not. Since beauty is evidential of health, a prerequisite for procreation, it has been made an all-powerful lure for the male—so powerful that he has been known to steal or kill for its attainment. Thus instinctively the male seeks only or at least the most healthy female for a mate and subsequently procreation. Of course this process of selection is not rigid but the beautiful, or synonymously, the healthy woman, will be chosen long before her less attractive sister. Reciprocally this design is also applicable to the male. Optimum condition, displayed by physical stamina, clear skin, good hair and teeth—these are the signs which instinctively attract the female—fundamentally for no other reason than his potential procreative powers.

The peripheral organs are frequently first to betray impending or existant physiologic disbalance, even years before acute symptoms appear. It is now known that much cosmetic deterioration is symptomatic of nutritional deficiencies and errors. Notwithstanding the instinctive female characteristic of resorting to artifice in an effort to amplify her charm, the cosmetic industry is in the main dependent upon the female's attempt to cover or mitigate cosmetic impairment engendered by physical depreciation.

Nutritional Factors Necessary for Health

A number of factors are inexorably essential for optimum health. The vitamins are nutritional biochemicals included in this category. While this phase of nutrition is far from being completely understood, those known compounds accepted as vital are vitamins A, B_1 or thiamin, B_2 or riboflavin, B_6 or pyrodoxine, nicotinic acid, pantothenic acid and the vitamins C, D, E, and K. The latest additions to this growing family, although not clinically employed, are paramino benzoic acid and inositol. Several of these already mentioned substances besides the latter two have not yet been proven to be definitely essential in the human economy, but experimental observations seem to indicate such a need. The minerals, equally important as the vitamins, have been more or less pushed into the background by the melodramatic discovery and sensational effects of the dietary accessories. The better known minerals are iron, calcium, phosphorous and iodine. Also of deep concern but infrequently brought to the foreground, possibly because of the ultra minute daily requirements, are manganese, magnesium, copper and zinc.

Proteins occupy a position of tremendous importance. Their service is twofold—as a source of building material with which to renew worn-out tissues; if necessary to be deaminized and burned for energy. Fats have been regarded merely as a fuel. But in the newer light it is reasonably certain that fats are necessary for the maintenance of skin health and for the absorption of certain oil soluble vitamins.

Cosmetic Evidence of Deficiency States

Not all nutrients or accessories provoke dermatologic symptoms when deprivation occurs, and we shall con-

Vitamins for beauty is a slogan that is backed by scientific facts. Many conditions that detract to a marked degree from the attractiveness of humans can properly be traced to vitamin deficiencies.

fine our discussion to only those factors which behave in this manner. Many dermatologic syndromes which heretofore were inexplicable and treated empirically without rhyme nor reason, can now be seen as initial warnings that nutritional sins of omission or commission are being committed.

Vitamin A: This substance is of much import from a cosmetic viewpoint. Dietary research has finally revealed a number of vague skin disturbances that are now known to be symptomatic of hypovitaminosis A. The skin becomes dry, rough, and loses its luster and elasticity. A condition known as follicular hyperkeratosis frequently appears. This change involves an elevation and enlargement of the hair follicle with a deposition therein of hardened material eventuating into horny papules. Those areas most commonly affected are the elbows, knees, lateral aspects of the thighs, back, buttocks, and neck. The elbows are especially concerned since they are more or less constantly exposed. Lehman and Rappaport, J. A. M. A. 114: 386, 1940, offer a comprehensive summation of the relationship of cutaneous disturbances and vitamin A deficiency. They conclude that A avitaminosis is much more common than supposed and that various skin lesions classified under hyperkeratosis are inextricably associated with sub optimum A.

Many clinicians have expressed disappointment in treating the syndrome with vitamin A. Two phenomena are accountable for failure. Hypovitaminoses are rarely single but multiple. The utilization of one member is to a great degree dependent upon the presence of other interdependent catalytic chemicals which, in multiple deficiencies, are absent or nearly absent. Second is faulty absorption brought about by excessive use of laxatives, mineral oil, lipoid insufficiency and alimentary disease.

Vitamin B_1 (Thiamin): This compound does not directly produce dermatologic symptoms. Nevertheless it plays an all-powerful role in the thiamin-nicotinic acid-riboflavin triumverate. Williams, R. R. and Spies, T. D.: "Vitamin B_1 (Thiamin) and Its Use in Medicine," The Macmillan Co., 1938, express this attitude, "The self-respecting physician need have no fear that he is being beguiled by the blandishments of a cure-all, if he is tempted to extend his clinical experimentation far afield beyond disorders which are intimately and obviously related to beri-beri.

Vitamin B_2 (Riboflavin), is fraught with particular interest to the dermatologist. Sebrell and Butler, Public Health Report, 54: 2121, 1939, offer strong evidence, in fact irrefutable evidence, that denuded, reddened lesions of the lips, maceration and fissuring in the angles of the mouth and facial seborrheic accumulations are symptomatic of ariboflavinosis or B_2 deficiency. This epochal discovery illuminates the cause of several of our most common cosmetic impairments. The writer estimates from observations that at least 90 per cent. of all women suffer from conspicuous pores especially on the nose and closely adjacent areas. Some of this number have chronic low grade deficiencies manifest by seborrheic deposits in these pores, especially in the nasal labial folds. Those cases in which there is merely enlargement of the pores without visible accumulations of material therein are evidential of a past deficiency. Apparently then and even after restoration of the deprived vitamin the enlarged pores do not return to original size or form or, in other words, constitute an irreversible injury. A great deal of make-up effort is expended in trying to cover up this uncomplimentary alteration especially on the nose. Blackheads are unquestionably closely related or a part of the above picture. The sebaceous material deposited

by the hyperactive glands becomes inspissated or hardened and blackheads result. The areas most affected are over the forehead, cheekbones, and about the mouth. This condition in its entirety has also been termed sharkskin. The already mentioned lip lesions, that is scaly chapping and otherwise unattractive appearance are also extremely common and occupy much of milady's efforts. To the writer's knowledge there are at least a half a dozen preparations sold expressly for the treatment of this condition.

Nicotinic Acid or nicotinic acid amide, is another important member of the complex nutritional chain. It seems that thiamin, riboflavin and nicotinic acid are a trio overlapping in symptoms of deficiency and are interdependent for optimum function of each. Symptoms of deprivation are manifold: so far as the skin is concerned the main disturbance is a symmetrical erythematous dermatitis, especially on the back of the hands. Brown scaly patches in localized areas are also noted. Another characteristic of wild or acute pellagra is a development of a photosensitivity, or hypersensitivity, to sunlight. More than occasionally lip and mouth lesions will concurrently be present. Probably most characteristic of the above signs is that the affected areas of roughened erythematous and desquamating skin is sharply demarcated from healthy skin. These states in their mild form may exist for years undiagnosed and tolerated by virtue of ignorance.

Vitamin B_6 or Pyrodoxin Hydrochloride: So far the function of this compound has not been definitely established in humans. It seems to produce some dermatologic symptoms and is claimed to be necessary for the utilization of unsaturated fatty acids. It is also stated to be influential in scheilosis (lip lesions), Smith, S. G. and Martin, D. W.: Proc. Soc. Exper. Biol. & Med. 43:660, 1940.

Vitamins E, C, K, and D do not appear to be of appreciable direct dermatologic consequence.

Paramino Benzoic Acid

Of all the nutritional bio-chemicals thus far studied none have been as spectacular in their effects as this compound—at least this is so from the public's point of view. Achromotrichia or graying of the hair is to many persons a serious problem. Prematurely or normally occurring, it is a source of embarrassment and greatly reduces social and occupational opportunities. Naturally, therefore, the layman follows avidly the progress made in both clinical and experimental investigations.

Rubbo and Gillespie, Nature, 146: 838, 1940, recovered paraminobenzoic acid from yeast as a benzoyl derivative and stated it to be a bacterial growth factor. Woods and Fieldes, Chem. Ind., 59: 133, 1940, reported the anti-sulfanilamide activity in vitro of PABA. Woods, (D.D. Woods, Brit. Jour. Exp. Pat., 21: 74, 1940), reported that yeast extracts contain a substance which neutralizes the inhibitory action of sulfanilamide of the growth of hemolytic streptococci. There was some evidence that this factor may be PABA.

From this point Ansbacher, Science 93:164, 1941, presented experimental evidence indicating PABA restored normal color in rats depigmented, within a month. It was also claimed that PABA is a growth promoting factor for chicks, with the conclusion that PABA is a member of the B complex.

A number of reports had been circulated by practitioners that large doses of the entire B complex produced pigment regeneration in gray haired patients. Sieve, (Science 94:257, 1941), observes the reaction of PABA in humans. One hundred mgs. were fed twice daily to fifty adults with variable degrees of achromotrichia. In all instances there was a darkening of the hair in about two months. Not all investigators are in accord relative to the pigmentogenic properties of certain nutritional bio-chemicals. Unna, Richards & Sampson, (Studies On Nutritional Achromotrichia In Rats), J. Nutrition, 22:553, 1941, and Elvehjen, (Pantothenic Acid In Nutrition Of The Rat), J. Nutrition 23:47, 1942, both assert that Pantothenic Acid will cure rat achromotrichia and that PABA was completely ineffective. Williams, (Inefficacy of Pantothenic Acid Against the Graying of Fur), Science, 92:561, 1940, believe pantothenic acid ineffective in rat achromotrichia. Gyorgy & Poling, (Further Experiments on Nutritional Achromotrichia in Rats and Mice), Proc. Soc. Exper. Biol. & Med., 45:773, 1940, were unsuccessful in curing loss of hair color.

Jr. A.M.A., 118:303, January 24, 1942, editorially reviews the observations of bio-chemists made some years ago; black haired rats on an experimental milk diet turned gray and developed the usual milk anemia. Administration of iron and copper cured the anemia but simultaneously restored the normal color of the fur. The Journal then presents the work of Agnes Fay Morgan et. al., (Vitamin B_2 Deficiencies as Effected by Dietary Carbohydrates), Jr. Nutrition 15:27, 1938. Herein it was demonstrated that the absence of certain members of the B complex produced achromotrichia in animals. Closely examining all the available data leads to some confusion. There are a number of potential contingencies involved in the pursuit of both clinical and experimental information, that would alter the results of achromotrichia studies. Therefore until investigators employ a standardized technic and conditions, divergent reports are bound to follow. Perhaps PABA and pantothenic acid are both chromogenic and synergistic in their action—or possibly these catalysts and the balance of the entire B complex are necessary for best results. Nor can we yet say with certainty whether or not iron or enemia are of any consequence.

The Journal advises caution before undertaking widespread studies on humans. The metabolic fate of PABA has not yet been determined. However, relatively large doses of closely related compounds can be taken without harm. Ethyl paramino benzoate is administered in dosage as high as 640 mg. However such an allergy is no guarantee of safety, ex., ethyl and

methyl alcohol or nicotinic acid and nicotine. A toxologic survey would be a simple matter and if favorable would permit a clinical study of sufficient magnitude for concrete evaluation.

Inositol—Antialopecia Factor: Woolley (J. Bio. Chem., 136:113, 1940), describes in considerable detail a series of experiments with mice whereby it became apparent that a new factor, not identified with any previously described vitamin, was necessary for normal growth and maintenance of animal hair. Its absence from the diet was followed by a cessation of growth, extensive alopecia and severe dermatitis. Certain fractions of liver extract were found to be potent in the prevention of the above syndrome. Wooley, (Science, 92:384, 1940), later determined the mouse anti-alopecia factor to be inositol or its derivatives. It is further stated that the role of inositol in human nutrition has not yet been determined.

Mineral deficiencies. By themselves sub optimum mineral content does not exhibit itself dermatologically. This is true with the possible exception of iron. Anemia or iron deficiency is accompanied by a characteristic palor or paleness and it cannot be said with any surety that iron is not concerned in achromotrichia. Iodine by virtue of its necessity for thyroid function probably exerts a very profound dermatologic influence.

Fats and essential fatty acids occupy a most important position in the development and maintenance of the integuement. As a carrier for the vitamins A, D, E and K, their importance is obvious. There is much evidence available that unless small amounts of certain fatty unsaturates are present in rat diets the following syndrome ensues; a scaling and inflammation of the skin, cessation of growth, kidney disorders and impaired reproduction. It was also found that fats having large amounts of the unsaturated fatty acids, linoleic, linolenic and or arichidonic brought about the greatest improvement in skin and other symptoms. (Burr & Burr, 1929, 1930, 1940), also (Chemistry & Medicine, edited by Visscher 1940, On the Necessity of Fats in the Diet, G. O. Burr).

Hansen (Hansen, A. E., Am. Jr. Dis. Child. 53:933, 1937), found that eczematous infants showed low iodine numbers as compared with normals. These cases were treated with daily doses of fatty unsaturates which was followed by a rise in iodine numbers and an improvement in clinical condition. Howard A. Schneider, (Proc. Soc. Exptl. Bio. Med. 44:266, 1940), reports the cure of rat dermatitis with butter fat. Hume and coworkers, (1940 C. A.), found arachidonic acid most effective in growth promotion and linoleic most effective in the maintenance of skin tone. Carlsen, A. J., (Facts and Fancies About Food Fats), Am. J. Pub. Health 31:1181-1190, 1941, is in agreement with the author when he states, quote, "Processing such as hardening (hydrogenation) of the more liquid fats so change the essential fatty acids that though still useful as a source of energy, they can no longer perform their specific role in human life and nutrition." He also adds that unless minimum amounts of fatty acids are present in diet the skin becomes scaly and inflamed, growth is interfered with, reproductive processes are impaired, and kidney disorders may result. In accord with these thoughts the writer has long felt and has partially proven that dandruff is nothing more or less than fat deficiency symptom. Inasmuch as the author has long been interested in the relation between fats and skin, an effort was made to question as many women as possible relative to their dietary habits. Admittedly such information is without much actual scientific weight, nevertheless the data so obtained cannot be entirely dismissed particularly in the light of existent information. It was found that invariably every case of normal skin, (by normality is meant freedom from defects with good texture, tone and color), revealed a history of a high-fat-low carbohydrate diet. Inversely the majority of the women with less attractive skins admitted a low fat-high carbohydrate diet. However, in repetition not every case of bad skin claimed a low lipoid intake, *but*, significantly enough, every normal case, without exception, did assert a high fat intake.

Sutton, R. L., Jr., Acne Vulgaris: New Concept of Etiology: A Disturbance of Lipoid Metabolism, J. Missouri M. A. 38:50-55 (Feb.), 1941, advances a new etiology underlying acne vulgaris. He claims that it is an imbalance between the dietary intake of lipoids and the patient's capacity for metabolizing them. This investigator has failed to be cognizant of certain other conditions, almost invariably present in these cases. We refer to an excess of all foodstuffs. These patients, a majority in the adolescent stage, possess voracious appetites accompanied by a minimum of control. Upon analysis it will be found that their diets of ice cream, cake, candy, bread and other delights of youth show a preponderance of carbohydrates and not fats. Improvement is noted at the reduction of fat intake mostly because it gives the overloaded body a chance to metabolize or get rid of the calorific excess which, in turn, is followed by improvement. We admit that the comedones, cysts and acne form lesions contain lipoid deposits but to a lesser degree these symptoms can be duplicated by a riboflavin deficiency. It is not possible, therefore, that the excess carbohydrates consumed at this time of life demand large amounts of catalysts for firing—leaving an insufficiency for the burning of fats? This reasoning is of course empiric but it can be stated positively that a reduction in calorific intake below or near the daily expenditure will invariably be followed by immediate improvement.

Ball and Jewell, 22 Franklin St., Brooklyn, have a good catalog which describes and illustrates all sizes of their patent rotary cutters.

Package Machinery Co., Springfield, Mass., have described their model FA wrapping machine in a new bulletin called, "Adjustability with emphasis on Ability."

TOOTH PASTE

GENERALLY speaking, a good tooth paste should be free from gritty particles and harmful abrasives. It should have a pleasant taste, good cleansing power and leave a cool pleasing after-effect. Proper antiseptics not only aid in keeping the teeth and gums healthy, but also aid in preserving the various organic materials contained in the paste. Grinding is an important factor and all tooth pastes, regardless of type, can be improved, made creamier and smoother, if ground before being routed to the tube-filling machines.

From the point of view of the work to be done, the polishing material is probably the most important of the raw materials entering into tooth paste manufacture. A great variety of materials have been tried for this purpose with little or no success. Those most satisfactory are tricalcium phosphate, precipitated chalk, magnesium carbonate, colloidal clay, and a synthetic anhydrous calcium sulfate-phosphate mixture.

In general, it should be borne in mind that any polishing material should have certain definite qualities—it should have cleaning power and fineness, should be free of grit and impurities, and should not be hard enough to scratch the teeth.

Various vegetable gums enter the manufacture of tooth paste as binders. Starch and glycerite of starch which possess desirable colloidal properties are also used as binders. Soap acts to quite an extent as a stabilizer and may be included in the class of colloidal binders.

Gum tragacanth is, no doubt, the most popular gum used in tooth paste manufacture. It can be used in an acid tooth paste, soap-containing tooth paste, or a neutral tooth paste. Great care should be exercised, however, if gum tragacanth is used in a milk of magnesia or a strongly alkaline tooth paste as there is a danger of the gum breaking down and losing binding power.

This gum is marketed in several grades but only the best grade should be used in tooth paste. The inferior grades do not stand up properly over long periods, the paste loses the desirable consistency, and the liquid ingredients have a tendency to separate from the solids.

Gum tragacanth is also obtainable in either ribbon or powdered form. The ribbon form is slow and difficult to hydrate and, if not properly hydrated, will leave lumps in the tooth paste. Powdered gum tragacanth hydrates readily and produces a smooth paste, if properly handled, possessing all the good qualities of the ribbon gum without the objectionable features.

Since the taste of the product is probably the first thing the consumer notices it is important in creating a favorable first impression. Tooth paste flavors cover a wide range of flavoring materials. The true essential oils and their derivatives are, by far the more important, but the synthetic flavors are, also, becoming an important factor.

Oil sweet orange, lemon and lime are important fruit flavors while oil peppermint, spearmint, wintergreen, sassafras, thyme and anise are popular herb flavors. Some of the spice oils such as oil clove, cassia, nutmeg and cinnamon, are used by many manufacturers. Thymol and menthol are also used. Claims are made of considerable antiseptic value derived by the use of various essential oils, and their derivatives, in tooth pastes.

Small quantities of some of the perfume oils are sometimes used with other essential oils and flavors, oil rose and rose geranium probably being the most popular.

Saccharine, dextrose, honey and corn syrup are the sweetening agents commonly used. Saccharin is a powerful sweetner and, when used, one-tenth of one per cent. or less is sufficient. This is the most widely used of any of the sweetening materials. Dextrose may be used in five to ten per cent. quantities in many tooth pastes and honey or syrup on the same basis.

Tooth pastes flavored entirely with flavors such as oil cassia, cinnamon, anise and sweet orange require little or no additional sweetening.

In addition to the above mentioned flavoring materials, oil eucalyptus is quite often used for its antiseptic value as well as the flavor. Vanillin, in small quantities, is used for flavoring and sweetening effect.

Many of the different flavors blend well and, quite often, a more satisfactory flavor can be developed by

a combination of several flavors than by the use of any single flavor. A dash of oil cassia, clove, cinnamon, or nutmeg will often improve a flavor that seems to be lacking just the desired "tang."

Where more than one flavoring ingredient is used, the flavors should, if possible, be mixed up in advance (three to four weeks is advisable), as this will permit the proper blending of flavors and give the paste a more bland, finished taste. The sharp, harsh bite of the more pungent flavors will, also, be reduced and the freshly made paste will have a taste more nearly like the same paste after ageing. The fresh paste should have a slightly stronger taste when made than expected when consumed, as there will be a slight fading of the flavor at first due to oils penetrating the fine particles of the polishing and cleansing ingredients.

The fruit oils, when used in tooth pastes, are not as permanent as the herb and spice oils and, according to my experience, should not be used in an alkaline or soap containing tooth paste. However, they seem to make desirable flavoring ingredients in a tooth paste having a slightly acid reaction.

Menthol should be added to most tooth pastes for its clean, cooling after sensation.

The flavoring ingredients used in tooth paste exert a preservative influence on the vegetable gums, glycerite of starch, etc., used as binders in tooth paste. However, it is advisable to use additional preservatives to maintain the highest efficiency of the binders which, in turn, keep the paste of the desired consistency.

Many drugs and chemicals are used as preservatives but only a few of the most common ones will be mentioned here. Boric acid is a desirable preservative to use in acid or neutral tooth pastes. It, also, has a decided antiseptic action. The United States Dispensatory says, "Although it has been abundantly shown that boric acid has no germicidal effect, in concentrated solutions it is distinctly antiseptic." Esters of p-hydroxybenzoic acid have a decided preservative effect on the vegetable gums and other binders commonly used in tooth pastes.

After a careful selection of the various ingredients it becomes necessary to decide on a properly balanced formula. While a great many different mixtures can be made, the following formulas will give some idea of amounts of various ingredients necessary to produce a paste of proper consistency and other desirable characteristics.

Precipitated chalk	**82.0**
Powdered neutral white soap	**15.0**
Glycerin	**41.0**
Water	**37.0**
Calcium chloride	**1.5**
Soluble saccharin	**0.2**
Gum tragacanth	**2.0**
Flavor	**2.0**

Mix the glycerine and gum tragacanth. Dissolve the calcium chloride in the water and add to the glycerine-gum mixture, agitate and let stand until the gum is thoroughly hydrated (20 minutes or longer). Now mix the balance of the dry ingredients and sieve through 40 or 60 mesh and add this mixture and the flavors to the liquids already prepared and mix until a smooth paste is produced.

Great care should be used in the selection of soap that is as nearly tasteless as possible. A good grade of powdered neutral white soap is satisfactory for a white paste while slightly yellow colored neutral soaps may be used in a colored paste.

Tricalcium phosphate	**100.0**
6% Citric acid solution	**10.0**
Glycerin	**41.0**
Water	**23.0**
Calcium chloride	**1.5**
Boric acid	**1.0**
Soluble saccharin	**0.2**
Gum tragacanth	**2.0**
Flavor	**1.2**

Mix the gum tragacanth with the glycerine, then add the acid solution, calcium chloride and the water and mix for fifteen minutes. Add the flavor at this point. Now mix all the other ingredients and sieve through 40 or 60 mesh and add to the above and mix for at least

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ALUMINUM HYDROXIDE ANTACID

THE clinical advantages of colloidal aluminum hydroxide as a nonabsorbable antacid in the treatment of gastric hyperacidity and peptic ulcer were pointed out in 1929. Subsequent investigations have confirmed conclusions that aluminum hydroxide shares the advantage of other neutral insoluble antacid salts in avoiding systemic alkalization so frequently produced by the use of absorbable alkalis.

The aluminum hydroxide should be a creamy white gelatinous substance with a not unpleasant taste and cause no nausea when taken into the stomach. It must be neutral to neutral red or phenolphthalein. It must have a combining power when titrated with Topfer's reagent, of at least 100 cc. 0.1 N HCl per 4 cc. aluminum hydroxide.

Ivy and his co-workers also found no evidence of toxicity from ingested aluminum hydroxide in normal dogs and, employing both powder and "cream" preparations, confirmed the observations of Einsel and his associates that aluminum hydroxide does not disturb the acid-base balance nor stimulate a noticeable compensatory increase in acid secretion by the stomach, and that factors other than the antacid property alone probably explain its effectiveness in peptic ulcer.

Quigley and his associates reported that massive doses of proprietary preparations of an "aluminum hydroxide gel" and an aluminum hydroxide powder given to normal dogs produced no influence on gastric evacuation time or histologic structure of gastric tissue and only a transient effect on the gastric secretory response of free acid to histamine phosphate. Clinical doses failed to produce significant changes in motility or tone of the stomach or pyloric antrum region.

In a report on the comparison of the various antacids, Adams indicates that aluminum hydroxide is the most suitable owing to the multiplicity of its action and its lack of toxic effects. He points out that its slight astringent and demulcent properties give it a protective action; that its "buffering" power is considerable because of adsorption of hydrochloric acid with prompt decrease in functional acidity and gradual further neutralization of acid in the stomach, followed by reprecipitation in the alkaline intestine with reabsorption of the chloride; and that it adsorbs toxins, gases and bacteria from the gastro-intestinal tract.

Jones has reported the oral use of a proprietary aqueous preparation of aluminum hydroxide in 24 patients with positive roentgen ray evidence of gastric or duodenal peptic ulcer in 23. All except 1 of the patients were completely relieved of symptoms. Of the 16 patients who had follow-up roentgenograms 13 showed disappearance of the ulcer in an average of thirty days, 1 showed improvement in eleven days and almost complete disappearance of the lesion in forty-nine days, and 1 was not improved in twelve days. This investigator has more recently studied the use of another similar proprietary preparation in the treatment of 43 additional patients with peptic ulcer. All were relieved of symptoms, and of 24 patients reexamined by roentgen ray, 17 showed no radiologic evidence of ulcer.

Whitcomb has reported the results of an eighteen months survey of 104 selected hospital patients with roentgen ray evidence of peptic ulcer. Of these patients 50 were treated with "colloidal aluminum hydroxide," 40 by oral administration and 10 by the continuous drip method, 45 with the Sippy regimen and 9 by various other medical methods. The survey revealed that the average number of hospital days for the patients treated with aluminum hydroxide was little more than one-half required by patients on the Sippy regimen, while the percentage improved by roentgen ray was nearly twice that of the Sippy treated group. There were no recurrences in the patients treated with aluminum hydroxide, as compared to a recurrence percentage of 13.5 in the Sippy group. Failure to control symptoms during treatment occurred four times as frequently in the group on the Sippy regimen. The continuous drip method was shown to be only slightly more effective than the oral administration of aluminum hydroxide. Rapid healing, which occurred in those patients having achlorhydria, suggested that the astringent and demulcent properties of the preparation are important factors in the healing of peptic ulcers.

Collins, Pritchett and Rossmiller have recently reported a follow-up study of 246 cases of peptic ulcer treated with two proprietary aqueous preparations of aluminum hydroxide. With sufficient quantities of these preparations as determined by hourly aspirations during various twenty-four hour periods, it was found that the free acidity of the gastric contents can be continuously neutralized.

The use of mixtures of aluminum hydroxide with kaolin has been considered principally in the treatment of ulcerative colitis. Eyerly and Breuhaus reported the use of daily retention enemas consisting of a mixture of kaolin and aluminum hydroxide in warm distilled

water in the treatment of 6 patients with ulcerative colitis. This was used in conjunction with other general measures. The authors expressed the belief that the treatment of ulcerative colitis by aluminum hydroxide and kaolin mixture is rational. In a further clinical study these authors reported good results in 84 per cent. of 25 patients with ulcerative colitis treated with daily retention enemas of 3 to 5 ounces (90 to 150 cc.) of an aqueous colloidal suspension of 3 per cent. pure aluminum hydroxide and 15 per cent. kaolin with an equal quantity of water.

Irrespective of the various properties of aluminum hydroxide preparations which may be favorable to the healing of peptic ulcer, however, it is emphasized that they should be regarded primarily as antacids and as such are useful principally in those conditions in which it is desired to control hyperacidity. There is evidence to indicate that they do not stimulate a marked secondary rise in free hydrochloric acid or produce alkalosis as in the case of the absorbable alkalis. The preponderance of evidence accumulated to date favored the view that the preparations as now employed do not produce serious deleterious effects. It has been shown that the absorption of aluminum compounds from the gastrointestinal tract is not appreciable. Orally administered preparations of this nature therefore exert principally local effects on the gastrointestinal tract and its contents. Commercial preparations of aluminum hydroxide should be labeled to show the calculated percentage of $Al(OH)_3$ which is present and the amount of the product which will combine with a given volume of hydrochloric acid. Laboratory findings indicate that the products should contain from 4 to 6 per cent. of $Al(OH)_3$ (calculated from Al_2O_3) to maintain a fairly uniform suspension. From a purely practical standpoint, the tendency to separate on standing does not interfere with uniform dosage because the preparation is easily resuspended on shaking.

Tooth Paste

(*Continued from page 155*)

two hours. If convenient, let stand over night before filling tubes.

Calcium sulfate-phosphate	**95.0**
Kaolin	**7.0**
Glycerin	**44.0**
Water	**33.0**
Calcium chloride	**1.5**
Soluble saccharin	**0.2**
Gum tragacanth	**2.0**
Flavor	**1.5**

Mix the gum tragacanth with the glycerine. Dissolve the calcium chloride in the water and add to the glycerine with agitation. Now add the flavor and then all the powdered ingredients, previously mixed and sifted through 40 or 60 mesh. Mix the paste for at least one hour.

In the above formulas, some changes can be made if desired. For instance, unground gum tragacanth may be used but is very difficult to hydrate properly. Any pure water can be used and the paste can be sweetened with dextrose instead of saccharine. The consistency can be changed by raising or lowering the amount of water or powder used. However, no radical change should be made without careful consideration as to effect.

All parts of tooth paste equipment which come into contact with the paste should be tinned, enameled or made of some non-corrosive alloy. Some manufacturers use plain steel equipment with good results by cleaning thoroughly and coating with a thin film of oil after each run. However, it is especially desirable to have the equipment made of, or lined with acid-resisting material when an acid-reacting paste is being produced.

Tooth paste mixing machines, of which many satisfactory types are available, should be run at such a speed as to insure thorough mixing but not fast enough to cause the paste to be filled with air bubbles, which cause undesirable variations in the weight of the tubes and spoil the appearance of the paste when squeezed out of the tube. The optimum speed varies with the consistency of the paste and must be varied to meet specific requirements.

French Perfumes and F.T.C.

(*Continued from page 141*)

conjunction therewith that such products are made or compounded in the United States."

Judge Hand, in his decision, had the following to say before he ordered paragraph 2 of the above prohibitions stricken from the order:

"We think the order is too broad. The proceeding against Rigaud and Fougera was calculated to correct abuses which at best were trifling and but for the broad discretion lodged in the Commission we should regard as hardly worth serious consideration. It must be remembered that the ingredients of the perfumes were mainly French and that the business to a great extent has been supervised by French directors and stockholders. It is notorious that French names are commonly used to describe perfumes and for some reason seem to be favorites with the trade. It is doubtless permissible to forbid the use of words which indicate a French origin and manufacture when *strictissimi juris* there is none, but we can see no reason for proscribing the use of all French words when designating the perfumes or for the rather fantastic requirement of the order that the price of retention must be an accompanying English translation. It is enough to insist upon the abandonment of the words 'Paris' or 'Paris, France' unless they are limited as in clause 1 of the order. We think the most the Commission should require is that Rigaud and Fougera cease and desist from the acts embraced in clauses 1 and 3. *Fioret Sales Co. Inc. v. F.T.C.*, 100 F. (2d) 358 (C.C.A.2)."

HEMISPHERE RAW MATERIALS

INTENSE research for further development of natural resources is taking place in every country of the world. This is due to the fact that international trade is seriously disrupted as the result of the war, and the warring nations need many things both for the war effort and for civilian use that were formerly imported. In this country we are looking principally to other nations located within our own hemisphere. Naturally, importation is easier from the countries of our own hemisphere, and further developments of this kind developed during the emergency can be carried on after the war to cement the nations of the Americas into a sound and solid economic unit.

Within this hemisphere we have variations in climate and other conditions that would make the production of almost anything possible if our minds were turned to it. Now this country is busy aiding the South American nations to develop production of those things which we need now and which we will need after the war. These things are not capable of production within our own boundaries, but they can be produced in one or more of the other countries located in this hemisphere.

As an example of the things that we could use very well during the present emergency and after the emergency is over, the Canadian production of cod liver oil is usually more than 150,000 gallons, which is only twenty-five to thirty-five per cent. of the production of Newfoundland. A chemical preservative has been developed for the fish livers for use during the period between the catch and the return to the home port. Five cod liver oil refineries are in operation there, many of them having improved equipment. The processing of swordfish and tuna livers is being investigated.

Brazil is expanding its production of essential oils, vegetable oils, cellulose and waxes for export to this country. In addition, there are in Brazil four hundred and fifty-two laboratories which are said to meet ninety per cent. of that country's demand for pharmaceuticals and biologics. Botropase, extracted from the venom of species of Bothrops, is an antihemorrhagic agent that has been under investigation. Brazil also has at least 200,000,000 eucalyptus trees in the country, and, up to now, our eucalyptus oil has had to come all the way from Australia.

Brazil has approximately twenty different varieties of vegetable oils. Castor bean production for 1940 and 1941 averaged about 40,000 to 45,000 tons per year. Leaf wax of the palm Cocos coronata resembles carnauba, and the nut oil of the same plant, called licuri oil, is similar to coconut oil. Cashew oil is being produced, and an effort is being made to find a use for the nuts. An oil is to be produced from tomato seeds, and the residual cake is to be utilized in fertilizers and animal feeds. Equipment has been installed for making by-products of citrus fruits such as oils and juice concentrates. A process has been developed for the extraction of vitamin A from urucu. Caffeine is being produced from mate. Brazil will be a major producer of caffeine if the coffee plastic, Caffelite, is produced on a large scale as is planned. This plastic will use 5,000,000 bags of coffee, from which there will be extracted 2,500,000 kilograms of caffeine. Other by-products of the Caffelite industry will be coffee oil and furfural. Estimates are that Caffelite can be sold in this country for about seven to ten cents per pound. Another recent de-

velopment in Brazil is the cultivation of pyrethrum flowers mainly by small farmers.

Argentina is developing things that we can use. Steps have been taken to encourage olive oil cultivation and to make soybean products. Medicinal herbs are also getting much attention in that country. Two companies are starting to manufacture acetic acid by the oxidation of acetaldehyde from the catalytic dehydrogenation of fermentation ethyl alcohol.

In Chile a company has been formed to produce 30,000 tons of potassium salts per year. The government is much interested in establishing an industry for producing iodine derivatives. Some aniline dyes are being produced in Chile, an olive oil plant has been constructed, and fennel and boldu oils can be produced if markets can be found.

The Guatemala government is investigating the cultivation of cinchona, derris, guaiac, paprika, and valerian. Plantations of cinchona trees have been set out, financed by American capital. The tea plantations in Guatemala can be expanded to a considerable extent.

Mexico is producing a substitute for coconut oil by mechanically cracking Coyol nuts, and Costa Rica is likewise producing a substitute for coconut oil by production of royal palm oil. Mexico produces 1,500 to 2,000 tons of candelilla wax per year. Also a shark liver industry has been inaugurated in lower California.

Great Britain is naturally developing new products. The cultivation of drug plants is being encouraged by the Pharmaceutical Society and the Minister of Agriculture,—nine drug plant farms now being in operation. It is stated that cascara sagrada, ergot, gentian, dill, and lobelia can be produced. In Scotland, school children are collecting medicinal plants. Therapeutic Research Corporation has been formed by five pharmaceutical manufacturers. In addition, Kenya, which now supplies us with large amounts of high grade pyrethrum flowers, has a magnesite which is an excellent substitute for the Swedish material. Ditomite from Kenya and the Shetlands, and vermiculite from Kenya and Western Australia are interesting. Necophyl is a china clay, and Stockalite and Devolite are colcoidal kaolins. In Supreme kaolin, seventy per cent. of the particles are not above one micron in size. Speswhite kaolin has fifty per cent. of its particles not larger than one micron. Talcolin is a mixture of Speswhite and talc, while Talcolite is a low oil-absorption material of similar type.

In addition to the developments mentioned above, many other undertakings are being inaugurated in many of the Latin American countries. Shortages of many materials formerly imported from countries now at war or difficult to reach will be relieved by products from other countries in this hemisphere. All of these developments take time to reach the point at which they make themselves felt, but as time passes, we will feel the effects of this work. Naturally, this nation is willing to finance many of these developments since at the present time these materials are essential to successful prosecution of the war effort, and due to the fact that this country will finance many of these developments, continued acceptance of the products resulting from these new undertakings after the war is over is assured.

F.D.A. OPINIONS

THE following are recent rulings by the Food and Drug Administration:

Wheat Germ Oil: "There are at least two forms of vitamin E, alpha and beta tocopherol, which occur in natural products. There is evidence that these two compounds do not have identical vitamin E activity. We are not familiar with investigations which show the relative proportions of alpha and beta tocopherol which occur in wheat germ oil or if there is a fairly constant proportion of these compounds in wheat germ oil. If more precise information with respect to the presence of these compounds in wheat germ oil is not available, it would seem desirable to express the vitamin E content of this product in terms of its equivalent in vitamin E activity of alpha tocopherol. 'Nature,' volume 148, page 472, October 18, 1941, carries an announcement of the adoption of 'dl-alpha-tocopherol acetate' as the International standard for vitamin E. Accordingly it is expected that an allotment of this standard will be sent to the Board of Trustees of the U. S. Pharmacopoeial Convention and this preparation, or a prototype standard, be made available for vitamin E determinations in this country.

"We can make no statement that would be applicable to all shipments of wheat germ oil as to whether or not the product would be subject to regulations under section 403(j). If it is apparent that the product is intended for human use as a source of vitamin E, it would undoubtedly be subject to the labeling requirements prescribed in these regulations. Since the need for vitamin E in human nutrition has not been established, obviously no minimum daily requirement can be prescribed. If wheat germ oil is recommended for human consumption as a source of vitamin E, consideration must be given to the fact that for a 200-gram rat the smallest quantity of wheat germ oil necessary to meet the rat's requirements is 25 mg. daily. In the labeling of any wheat germ oil offered for human use, consideration must be given to section 201(n) of the Food, Drug, and Cosmetic Act and the regulations thereunder."

Malaria Preparations: "This Administration has not objected in the past to a therapeutic representation regarding malaria where the article furnished a sufficient quantity of cinchona alkaloid over an adequate period of time. Its position, adopted more than ten years ago, informed manufacturers that at least 15 grains should be administered daily over a period of eight weeks, without interruption. In view of the various papers that have been published during the past decade on the subject of malaria and the apparent change in the concept of the treatment of this disease, this administration is now conducting an investigation to determine the consensus of present-day medical opinion regarding the various aspects of malarial therapeusis. Although it would seem that true prophylaxis against malaria cannot be obtained through the use of cinchona alkaloids and that quinine does not cure nor eradicate malaria but merely controls its acute symptoms, this Administration will undertake no regulatory action against this class of preparation until its survey has been completed, provided, however that these preparations furnish at least 15 grains of quinine as an adult daily dose.

"Upon the termination of this investigation, this Administration will express its opinion regarding the requirements of the various sections of the Federal Food, Drug, and Cosmetic Act as they pertain to preparations recommended for the treatment of malaria."

Saccharin: "Wartime restrictions on sugar have prompted requests for permission to substitute saccharin for sugar in foods. * * * Saccharin has no food value. It is several hundred times as sweet as sugar. The substitution of saccharin, even in minute amounts, for sugar, displaces relatively large amounts of sugar and materially reduces the food value of a food to which saccharin is added. Very shortly after the passage of the Food and Drugs Act of 1906, it was held that foods containing saccharin in any proportion would be regarded as adulterated under that statute and that this adulteration could not be corrected by any form of labeling. We have continued to hold that position throughout the many years of enforcement of the 1906 Act and its successor, the Federal Dood, Drug, and Cosmetic Act of 1938. * * * Of course, products which contain saccharin and are for special dietary uses may be legally manufactured and sold under the restrictions laid down by the regulations under section 403(j) of the Act. These regulations, which include the labeling requirements for special dietary foods, were published in the Federal Register of November 22, 1941."

Sulfonamides

(*Continued from page 147*)

sulfanilamide powder (0.8 per cent.) have also been used for bladder washings in cases of colon bacilluria.[49]

The sulfa drugs have also been employed in treating respiratory conditions. In one paper on such usage, Schmidt[50] reports the treatment of acute rhinitis and other acute respiratory infections with local applications of sulfonamide compounds. The preparation most frequently used was an 0.8 per cent. solution of sulfanilamide. However, in all of the acute conditions, the treatment is most effective if given in the early stage of acute inflammation.

Turnbull[51] found that a 5 per cent. solution of the sodium salt of sulfathiazole brought greater relief from the symptoms of chronic sinusitis when used as a spray than any other preparation he had tried. Local sulfonilamide therapy has also proven of great value in the surgical treatment of acute mastoiditis.[52]

Although sulfonamides have been used topically in treating affections of the eye, their value in this connection has not been fully established. Sulfanilamide and sulfathiazole ointments seem to be of value in treating infected corneal ulcers and in certain forms of conjunctivitis, but according to Guyton,[53] such therapy is probably of little worth in deeper infections. However, in the treatment of trachoma with an 0.8 per cent. solution of sulfanilamide, Cosgrove[54] found that symptomatic relief with local therapy is apparently as rapid and as complete as that obtained from oral medication.

The local use of sulfonamides is still in the developmental and experimental stage, but already enough has been learned to show that such usage adds much to the now great medical value of this group of chemical agents.

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Luis de Hoyos, manager and secretary of Synfluer Laboratories, Monticello, N. Y., and Mayor of his home town, recently returned from an extended trip through South and Central America where he represented, as technical adviser, the United States Delegation to the Inter-American Congress. He was also selected as technical adviser to the Congress itself. His trip was arranged by the United States Department of State.

LUIS DE HOYOS

Latin-America is now exporting highly satisfactory essential oils to the United States, Mr. de Hoyos said, and an increased output will unquestionably be available in the near future. He added that a great deal of increased research will be necessary to produce expansion and improvement of quality, explaining that it had not been unusual for South American materials to be shipped to Europe for finishing, and then to be shipped to the United States as European materials.

Primitive distillation equipment is in many cases responsible for the failure of essential oils to meet our standards. Lack of expertness in handling distillation equipment is also a serious handicap, he said.

The present war supply conditions will bring about a great general improvement along these lines. "North American cooperation is welcomed by all industries in these countries. The Good Neighbor policy of President Roosevelt, Mr. Hull and Mr. Welles deserves the highest commendation not only from the diplomatic, military and political standpoints but commercially as well," Mr. de Hoyos said. "Unfortunately American business men are not giving the proper support to their government in building commercial relations with these countries. American business houses have repeatedly made serious blunders in treating Latin-American concerns with an arrogant attitude, with a complete lack of tact and psychological understanding.

"The tragic war events have again presented us an opportunity for improving export business to Latin-America. Unless we treat this opportunity intelligently, we cannot hope in the future to hold our own against European and Japanese competition."

Vultee Vanguard Pursuit. Photo Courtesy Vultee Aircraft, Inc.

PROTECTION

VITAL to the protection of our nation is America's fast-growing air force. The quality and strength of metals used is obviously of prime importance. In a similar sense, adequate protection of the products you package in tubes depends largely upon the ability of the metals used to withstand all the stress and strain to which they are subjected.

New England "SHEFFIELD PROCESS" Tubes are made to give greater product protection. Exclusive methods of treating the metals produce a pliable toughness which we believe has never been equalled in the history of collapsible tube manufacture. Yet, they cost no more than ordinary tubes. Small wonder, therefore, these better tubes are used by so many of America's largest manufacturers and a lot of smaller but no less particular buyers, too. Just call or write our nearest office for every possible cooperation.

New England SHEFFIELD PROCESS TUBES

NEW ENGLAND COLLAPSIBLE TUBE CO.

3132 SO. CANAL STREET, CHICAGO • NEW LONDON, CONN. • W. K. SHEFFIELD, 500 FIFTH AVENUE, NEW YORK
N. CAY MATTHIEU, 1448 WABASH AVE., DETROIT, MICH. • THE WILCO COMPANY, 7016 McKINLEY AVE., LOS ANGELES, CAL.
EXPORT DIVISION: 116 NASSAU STREET NEW YORK, U.S.A.

MERCHANDISING NEWS and PACKAGING NOTES

PACKAGING SHOW: The most urgent of packaging problems—that of efficiently utilizing existing materials and developing substitutes for restricted materials—will be authoritatively and exhaustively examined at the Twelfth Packaging Conference, to be held at the Hotel Astor, New York City, April 14 to 17, it is announced by the American Management Association, sponsoring organization for the conference.

At the same time, a new annual packaging award has been announced in connection with the show. The award will be known as the American Management Association Packaging Award. It is the result of a thorough study conducted by a committee of the American Management Association to lay the basis for a scientific and professional determination of conspicuous accomplishment in the art of packaging. It represents an outgrowth of the Irwin D. Wolf Awards established by the association in 1931 and presented annually until 1941, when suspension was determined upon, pending the study by a committee to determine a more effective basis for the awards.

Selection of packages for consideration by the Jury of Award has been made by "package detectors," represented in the persons of outstanding packaging men located in various geographical areas. To these "package detectors," the widest latitude, within prescribed criteria of packaging excellence, was permitted in their selection of packages.

All packages selected by the "package detectors" will be judged on the basis of ten characteristics: display visibility, buying information, consumer convenience, use of color, use of typography or lettering, beauty of design, merchandising ingenuity, construction ingenuity, production economy, use of materials. Different weights will be assigned to each of these characteristics. Awards in all cases will be made to the company using the package for the distribution of its products.

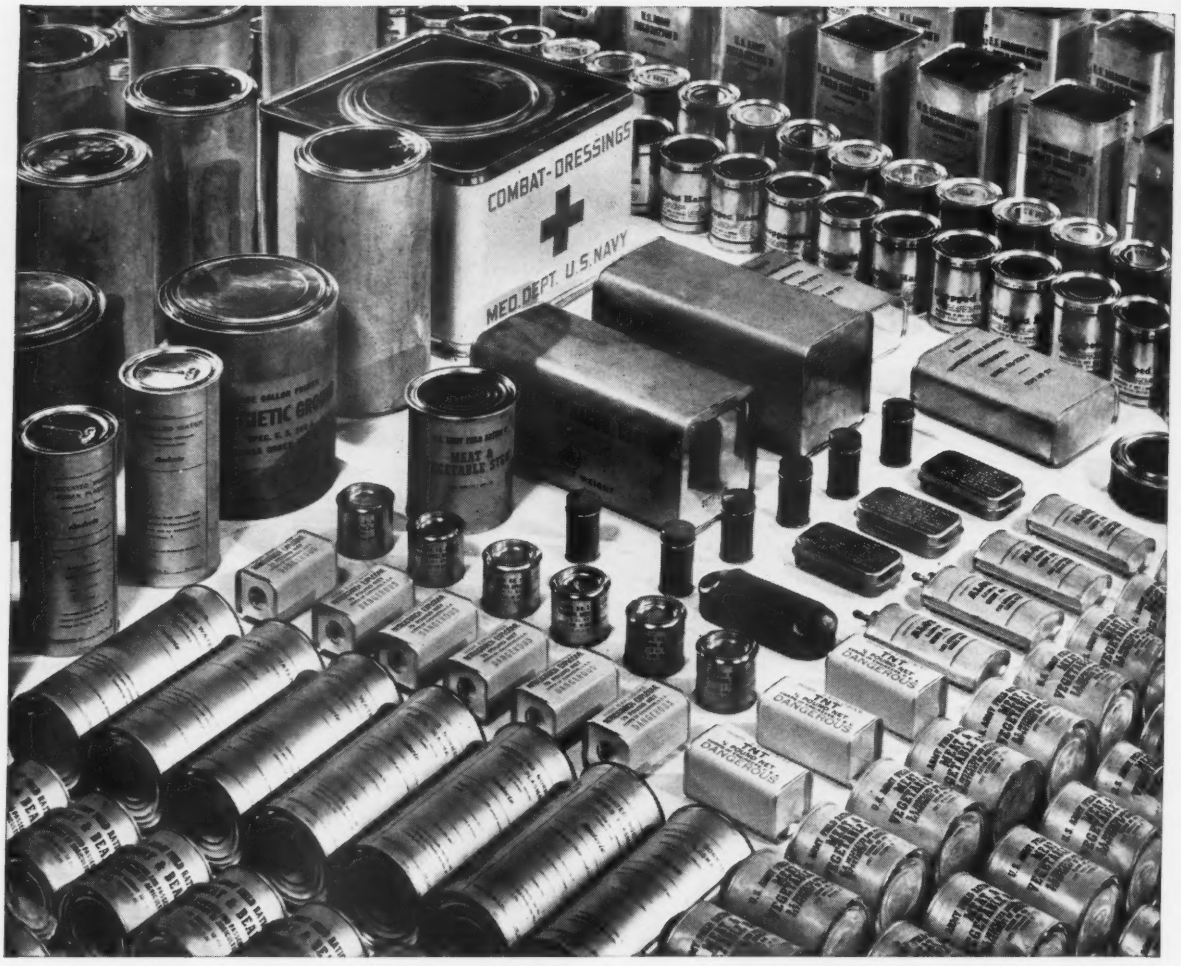
In order to avoid the possibility of any attempt to influence the Jury of Award, the American Management Association will defer announcement of names of the "package detectors" and the personnel of the Award Jury until completion of the work.

AMERICA NEEDS TIN: The Tin Salvage Institute, a non-profit organization, has been formed by members of this industry to salvage tin from collapsible tubes. This is a splendid demonstration of how industry may, on its own hook and under government approval, go to work on the new problems arising out of our wartime economy. The paper and boxboard people have been working on the salvage problem in their own field but there, such direct action is apparently impossible, for paper is bulky, and there are existing commercial channels for paper salvage. The same pressure is undoubtedly on in other fields for there is much to be done in converting us from a wasteful people to one which utilizes every bit of what was formerly considered waste. The problem is one of efficient organization, for the citizenry is ready and willing to do its part and only resents having its well-meant and well-intentioned efforts come to naught through poor planning. As the collapsible tube plan appears to be such an excellent one, the following description is given in considerable detail.

"In a plan announced with the approval of the Bureau of Industrial Conservation in Washington the 60,000 drug stores in the United States will be asked to set up collection boxes for used tubes to cooperate with a joint committee of the Packaging Institute of America and the Collapsible Tube Manufacturers' Association working with wholesaler and retailer organizations".

Joel Lund, of the Lambert Pharmacal Co., chairman of the joint committee, said that the campaign will be called to the attention of millions of radio listeners through the coast-to-coast network programs of seventeen national advertisers and users of collapsible tubes. The public will be asked over the radio and throughout the press to save used tubes and take them to drugstores so that the nation can conserve the small supply of tin available in this country. It is estimated that there are 6,000 tons of tin now in use in collapsible tubes.

Under the plan wholesalers will be asked to pick up and forward used tubes to the smelters. The committee is setting up special tin recovery and smelting equipment in Hillside, N. J. The organization will be known as the "Tin Salvage Institute." The entire plan is being



SOME "NON-SECRET" WEAPONS THE AXIS WOULD LIKE TO HAVE

Study the Labels on the cans and packages in the picture above.

On some of them, you'll notice "Army Sliced Bacon, Canned . . . U. S. Marine Corps Field Ration D . . . U. S. Army Meat and Vegetable Hash . . . TNT Dangerous, Corps of Engineers."

There's a container for dried human blood in the picture, too. For transfusions in the field. Another to house a delicate motor on anti-aircraft guns.

And while you'll be interested to know that these articles are some of the many defense items the containers for which are made by the can-making and packaging industries, their significance goes far beyond this simple fact.

For they are weapons. "Non-secret" weapons, if you will. And every country has them. *But the Axis would like to have ours.* Do you realize why?

The industrial resources that produced these "non-secret" weapons are the largest in the world. The Axis needs those resources.

It needs the men . . . the machinery . . . the skill . . . the research that make the quality and the quantity of these weapons possible. It needs the energy of the free, unregimented economy which produced these weapons.

We Americans can congratulate ourselves that the Axis hasn't these resources . . . that we—not the Axis—have built the greatest packaging and can-making industries in the world . . . that we are now using the sinews of these industries to resist aggression. American Can Company, 230 Park Avenue, New York, N. Y.

organized on a non-profit basis and the reclaimed tin will be subject to allocation by the government.

Display material now being prepared in the form of placards and window posters promoting the tin conservation drive will be distributed to drug stores. The druggists are urged to take the three following steps: 1. Place a box conspicuously in the store for the deposit of used tubes by customers. A placard for such boxes will be sent to the drug stores. 2. Use the display material which is being sent out by the Tin Salvage Institute. 3. Instruct clerks to suggest to their customers that they can help by returning their used tubes to the store.

"The importance of this campaign and of reclaiming this tin can not be overemphasized," Mr. Lund said. "It is estimated that 85 per cent. of all tin in collapsible tubes is used in drug store products.

"It is also estimated that from 20 to 25 tons of collapsible tubes are thrown away every day. While the return of one tube may seem insignificant, the aggregate quantity is rather staggering. Because this campaign is of such major importance to all of us, we are enlisting all factors of our industries behind the drive, but most important of all is the role of the retail druggist who is in immediate touch with the consumer and in a position to get the cooperation of his customers."

Where retailers are within trucking service areas of wholesalers, collections of used tubes can be turned over to the truck drivers. Outside such areas retailers are urged to hold collected tubes and ship freight collect to their nearest wholesaler in quantities of five pounds or more. In localities where collections are small, druggists may wish, as a patriotic move, to pay parcel post charges to send the tubes to wholesalers or they may pool their collections with other druggists in order to make the minimum freight collect shipments of five pounds.

Members of the operations committee of the campaign are: Lee H. Bristol, Chairman; Retail Representatives: Donald S. Barnes—National Association of Retail Druggists; Fred L. Griffiths—National Association of Chain Drug Stores; Wholesale Representatives: E. L. Newcomb—National Wholesaler Duggists' Association; Ray Schlotterer—Federal Wholesale Druggists' Association; Tube Manufacturers: L. B. Platt, Secretary—Collapsible Tube Manufacturers' Association; Tube Users, Advertising and Promotion: Lee H. Bristol, Bristol-Myers Co.; George MacGregor—Colgate-Palmolive Peet; Charles Luckman—The Pepsodent Co.

COSMETIC REPORT FROM HAWAII: First hand news of Hawaii after war has hit its shores comes from Eileen O'Brien, who writes as Lorna Arlen, beauty editor of the Hawaii Farm and Home. Her comment on cosmetics under wartime conditions should interest every manufacturer for it contains several marketing tips of the first order. She writes "After a month of war the women in Hawaii have proved that the feminine urge to beauty prevails through bombs and blackouts. . . . Blackout nights are providing perfect opportunities for use of facial masks, emollient creams and other home treatments for which there never seemed to be time before. . . . The fact that silk stockings are at a premium is no hardship in Hawaii where it's pleasant to go bare legged even in January but the new exposure of the limbs has brought about consideration for leg beauty that didn't exist previously. A "facial" for feminine knees is no longer a beauty editor's pipe dream. Home treatment with a complexion brush, cleansing cream and lubricating cream gives legs a satiny sheen as alluring as any silk stocking web. And make-up foundation in a deep tan shade eliminates that undressed look from the legs. . . . The trend is to tailored clothes . . . but this doesn't mean that bright, brave lipstick should be, or is being discarded, or that women are giving up morale-building scents of toilet water and colognes. . . . With martial law preventing social calls after dark, the solution is to spend the night at friend's homes or to invite them to stay at yours. This means a new importance for overnight kits that pack the essentials."

COLOGNE FUTURE: With the alcohol situation more critical than ever, the future of colognes presents a very interesting field for speculation of the mental variety. The best long range view is that there may be a trend towards something between a cologne and a perfume, or to an alternate solvent replacing alcohol, or to more widespread use of water-soluble perfume oils and aromatics. Much depends upon the alcohol shortage—how serious it gets before it improves and how long the stringent situation lasts.

But for the nonce, the important factors in the cologne field are taking one or all of several courses. Prices have been increased by some, varying from 10 to 33 per cent. Others are holding the price unit, since they feel it will affect volume too seriously, and are going to smaller amounts. A new bottle style is obviously the most painless method of achieving this end. And then, of course, whether you lower the quantity or raise the price, there is always the business of putting the sales emphasis upon some other product, the perfume, the bath powder, make-up are generally considered the best bets.

PACKAGES SELL DEFENSE BONDS: Fabergé, the perfumer, has just made arrangements to assist in the sale of Defense Bonds.

On their new spring packaging (orders for which have just now gone into work), each item will have on its outside wrap the printed words, "Buy Defense Bonds for Victory." This applies to the package wraps (large or small) of colognes, perfumes, and bath powders—all of which are sold in the cosmetic departments of exclusive shops.

For Today's
Closure Problems!
Plaskon Molded Color will help you maintain product appeal while meeting production and material problems. It is extremely beautiful, chemically inert, odorless, tasteless, resistant to solvents . . . Plaskon offers an advisory service based on long experience in the drug and cosmetic industry. Plaskon Company, Inc., 2110 Sylvan Avenue, Toledo, Ohio.
PLASKON
MOLDED COLOR

GLASS CONTAINER DECORATION: We have a letter from L. S. Green, president, Universal Ceramics Corp., New York, which describes a decalcomania which fuses with glass to form a permanent label or decoration. Needless to say, with new molds probably out of the question for the duration, every possible method for making the most of existing molds or of stock containers is of considerable interest. Mr. Green writes that,

"We have developed and have been offering for sale to glass manufacturers a decalcomania for fusion into glass either as a labeling or decorative device or both. We are now prepared to offer the decorated ware itself.

"Ceramic color as a labeling or decorative device has been available to bottle buyers through the medium of the screen process. This method of application is flexible and economic when one or two colors are involved. The advantage of the decalcomania lies in its ability to deliver multiple color effects at slight increase in cost, since any number of colors can be applied in one operation. Of particular interest to designers is the fact that gradations of shading with fine detail and perfect registration are natural by-products of the lithographic effort.

"Decorating capacity for handling large quantities of ware is available. The slow factor is the production of the decalcomanias which will probably involve a minimum delivery time of sixty to ninety days".

THE COSMETIC TREND: The war is making itself noticeable upon toilet goods counters in many ways. While little is still seen yet of predicted changes in packages, buyers know that they are in the offing and they are preparing for them. Compartments upon 5 and 10 counters are provided with second bottoms to raise the displays, as lesser merchandise is shown to prevent stock deterioration. In department stores handling is discouraged. Open containers are held below the counters to permit examination of merchandise with sealed outer wrappings.

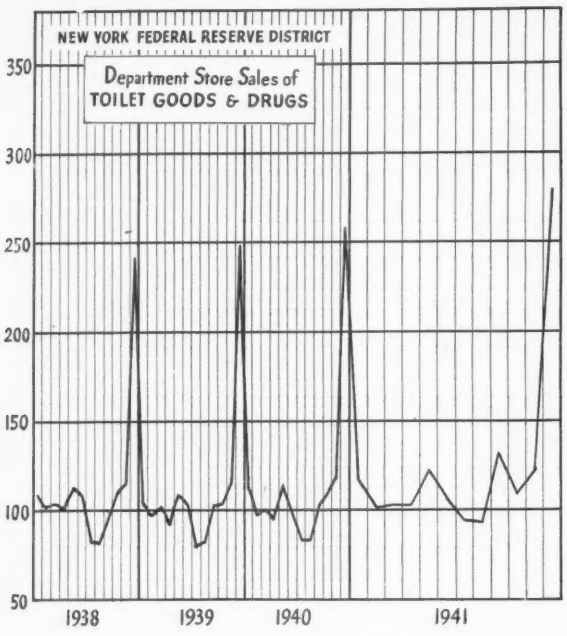
Color in make-up seems to show a strong leaning toward the true red like the stripes in the American flag. Color is very important in one's life today. No time now to go drab. Colors must be bright whether they are worn to help brighten uniforms or worn with fashion colors for evening. The blue-reds will undoubtedly again be favored this Spring as usual, to complement the various shades of blue fashion colors which are inevitable. That "natural" look is gaining in popularity but it requires fresh, clear and flawless skin and that can only be gained by a relentless daily routine of cleansing and softening with creams.

More perfumes are carried on the person than ever, but far seeing merchandisers begin to wonder how far this habit can be combined with the expected shortage in small size bottles. The solution may be a strong push for medium sizes with a corresponding drive for separate pocket containers to be refilled. Women prefer the simple scents for the day but generally buy a stitable bouquet for the evening. Demand for perfumes has been good especially in the better type stores in the larger population centers.

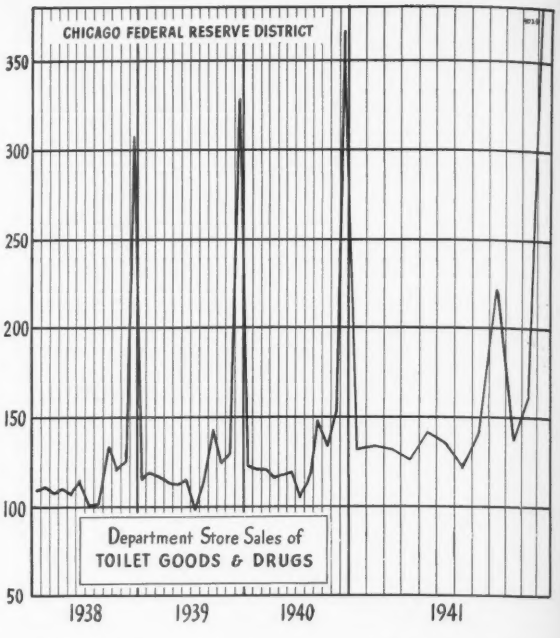
Scare buying is flaring up again occasionally as OPM rulings seep into the consumer pages of the daily press, but buyers view the situation with confidence. They feel they are dealing with a consumer who looks upon cosmetics as a necessity. Prospects for employment possibilities and new usefulness in defence activities for middle aged women make this type of customer a more important prospect than it has been in the past months.

BEST 5 & 10 PACKAGES: The winners for 1941 in the 5 & 10 cosmetic packages were Pond's Dream Flower line for greatest counter display value; Lander Cologne Hurricane lamp, and Lotshaw's Gorjus hair dressing for best use of packaging materials; Northeastern's Sway nail polish and Sno-Mist for greatest merchandising value gained from packaging design. In the special holiday goods classification, Lander won the counter display and use of packaging materials with Apple Blossom gift set and Market Basket, respectively, while Pickwick won the merchandising prize with Morning Perfume bar.

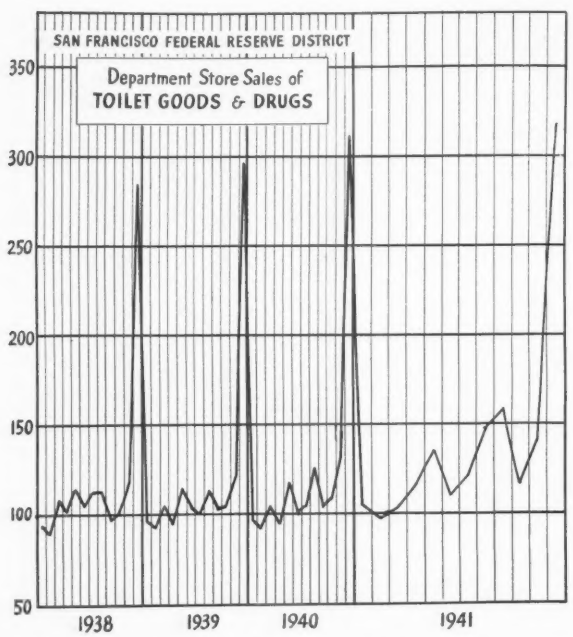
Prize winners, together with all entries to the contest will be exhibited at a special display in the annual Packaging Exposition, April 14-17 at the Hotel Astor, New York. In former years this exhibit was held separately by the Syndicate Store Merchandiser which sponsors this annual 5 & 10 contest.



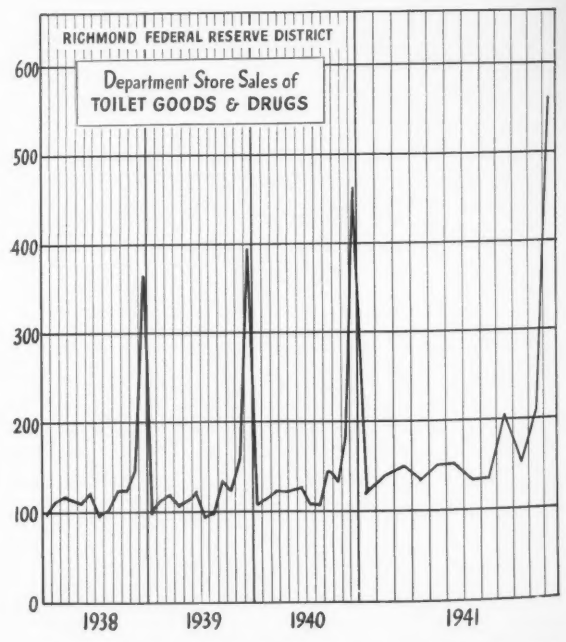
Sales of toilet articles and drug sundries by department stores in the New York Federal Reserve District were 8 per cent. greater in December 1941 than in the same month of the preceding year. Corresponding index numbers were 279.1 for December 1941, 122.6 for November 1941, and 258.4 for December 1940.



Sales of toilet articles and drug sundries by department stores in the Chicago Federal Reserve District were 10 per cent. greater in December 1941 than in December 1940. Corresponding unadjusted index numbers were 403.4 for December 1941, 162.0 for November 1941, and 366.7 for December 1940.



Sales of toilet articles and drug sundries by department stores in the San Francisco Federal Reserve District were 5 per cent. greater in December 1941 than in the same month of 1940. This corresponds to unadjusted index numbers of 327.1 for December 1941, 142.9 for November 1941, and 311.5 for December 1940.



Sales of toilet articles and preparations by department stores in the Richmond Federal Reserve District (embracing Baltimore and Washington) were 21 per cent. greater in December 1941 than in the same month of 1940. This corresponds to unadjusted index numbers of 559.6 for December 1941, 209.5 for November 1941, and 462.5 for December 1940.

The school with the packaging problem

It was just 100 years ago that the quiet little town of Franklinville, New York, ran into quite a packaging problem. It concerned color.

Choosing the right colors for any kind of package is always a problem. Franklinville's choice started a feud.

Fire destroyed the original schoolhouse and a new one was built. One group wanted to paint the school white. Another faction held out for red paint. Words flew thick and fast. Arguments grew bitter. Finally, the "Whites" won the verdict.

The others didn't accept the decision. They met one moonlight night and painted red checkered squares on the white paint. As a compromise the school has remained red and white ever since.

In business, color in packaging must be just right and please everyone—from the manufacturer to the consumer. Colors must attract, harmonize, and be practical.

Being able to choose the right colors for the package *and* the product is the mark of a packaging expert. The correct use of color in designing packages is but one of the many features of Continental's complete packaging service.

The best design will not be successful unless it's reproduced perfectly. The best looking package will not be a success if it is not convenient for consumers or if it does not protect its contents fully.

Our complete service takes in every angle of good packaging. If you have a packaging problem, call Continental.

CONTINENTAL CAN COMPANY

New York Chicago San Francisco Montreal Toronto Havana

Our Bounden Duty

As Loyal Americans - For the Duration

1 To do all we can to keep a steady flow of our materials passing into the hands of the sick.

2 To maintain the high standards we have set up for workmanship and general excellence.

3 To give our time and effort whenever possible to aid any group working for victory and the preservation of democratic ideals.

4 To keep an even keel and not to lose our sense of proportion, in spite of any hardship we may endure.

5 To cling tenaciously to our firm belief in fair play, honesty, and good business dealing.

6 To remember above everything that we are all partners in a great cause, one which we MUST win.

★ ★ ★

T. J. DYKEMA, PRESIDENT, PENNSYLVANIA GLASS PRODUCTS CO.
PITTSBURGH, PA.

"Quality First Always"

JOHNSON & JOHNSON

JOHNSON & JOHNSON

Johnson & Johnson has a new carton for its baby oil. The new carton offers opportunity for examination and at the same time keeps the bottle clean and free from dust and finger marks.

CHARLES OF THE RITZ

CHARLES OF THE RITZ

All the qualities of Revenescence Cream are now available in liquid form in the new Charles of the Ritz Revenescence Lotion. It is suggested for daytime use after the regular cleansing. A few drops smoothed lightly over the face give an excellent make-up foundation. Revenescence lotion comes in a distinctive black chromium capped bottle.

L. R. KALLMAN & CO.

L. R. KALLMAN & CO.

L. R. Kallman & Co. is introducing Atom Creme, a "facial creme wash." Atom Creme is applied like ordinary cleansing cream but instead of being removed with tissues, a wet wash cloth or facial sponge is used to wash the face with it. There is a lathering action which cleanses the skin and at the same time leaves it feeling soft and smooth.

REVLON

REVLON

In true nautical fashion and with a touch of authenticity, Revlon's miniature copy of the gob's formal hat is made up in true blue sailor serge with gold letter identification "S. S. Revlon" on the small hat band. The sailor hat subtly conceals three Revlon products, nail enamel, Seal-Fast and a bottle of oily remover.

PRIMROSE HOUSE

PRIMROSE HOUSE

Hand Lotion is another addition to the Primrose House Forget-me-not line. It is an emollient lotion that is creamy yet does not leave any sticky residue after using.

PINAUD

PINAUD

Reaching down to Rio for inspiration, Pinaud has created "Corrida" toiletries. Corrida is a grand fragrance available in eau de cologne, perfume and face powder. The packages are presented in the South American way, gay with dark-eyed beauties. Black lace adorns the neck of the cologne bottle.

"Don't bother to wrap it ...it's in a carton"

SAVE PAPER

A good idea ... to take purchases in the manufacturer's folding cartons ... It saves additional paper, and conserves the clerks' time. Why not mark them "save this carton for waste paper collection". Be sure *your* cartons do a complete and efficient job today.

● Uniform, rectangular cartons of Ridgelo clay coated board are indispensable to war time marketing. They protect the product from breakage, germs, dirt and sun—may be treated to help keep moisture in or out. Give your retailer these convenient sales units. Guarantee quantity and quality for the consumer. Prevent substitution!

Remember that the use of Ridgelo clay coated cartons may release other important materials for war service. Plain, printed, varnished, embossed, or gloss-brushed Ridgelo is a most attractive boxboard.

Your independent boxmaker is ready to cooperate with samples and plans for modern production, based on government regulations. Ask him for details!

★ Ridgelo CLAY COATED BOXBOARD

DON'T BURN WASTEPAPER SAVE IT! SELL IT! DEFENSE NEEDS IT! ★

MADE AT RIDGEFIELD, N. J. BY LOWE PAPER COMPANY

Representatives: E. C. Collins, Baltimore • Bradner Smith and Company and Mac Sim Bar Paper Company, Chicago • H. B. Royce, Detroit
Gordon Murphy and Norman A. Buist, Los Angeles • A. E. Kellogg, St. Louis • Philip Rudolph & Son, Inc., Philadelphia

VIGNY

Vigny's newest presentation is Beau Catcher in perfume and eau de cologne. It is fresh and fragrant and just a wee bit saucy. The perfume comes in three sizes and by the dram; the cologne in two sizes. Distributed by Al Rosenfeld, Inc.

VIGNY

HOUBIGANT

Houbigant introduces two new toilet water presentations in distinctive bottles: Transparence Eau de Toilette a lighter version of one of the more recent perfumes by Houbigant; in addition a new toilet water series including the following floral fragrances; Jasmin, Lilas, Muguet, Rose and Violette.

HOUBIGANT

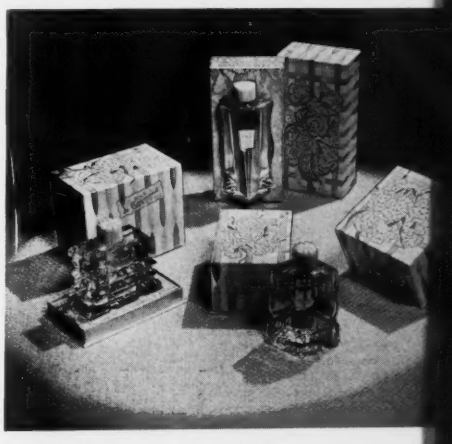
SCHIAPARELLI

Schiaparelli's Sleeping eau de cologne, companion to Sleeping perfume and third in a trilogy of colognes which includes Shocking and Salut, makes its debut. It comes in a 4-ounce candlestick bottle, slender and easy to grasp, with a "flame" stopper and is charmingly packaged in Sleeping Blue.

SCHIAPARELLI

PARFUMERIE DE RAYMOND

Parfumerie de Raymond presents its Pinx series in attractive new packages. The trellis-like effect in pink and purple on a white background has pink flowers entwined in it, and the base of the packages has a delicate lace design in pink and silver. Pinx eau de cologne, eau de toilette, and bath powder are included in the series.



PARFUMERIE DE RAYMOND

DERMETICS, INC.

Here is an "automatic" rouge applicator by Dermetics, Inc. Besides being attractively packaged in a pearl-white and very light case, it is described as "controlling" the amount of rouge used. It comes in three shades called Artist Red, light, medium and dark.

DERMETICS

MADAME SUZY

Madame Suzy presents Golden Laughter, her new American perfume in the same type bottle as her first perfume offering. Ecarlate de Suzy. The clever miniature glass head which holds the perfume is topped with a stopper in the form of a tiny hat. Green trim distinguishes Golden Laughter from its companion perfume Ecarlate de Suzy, which is red trimmed.

SUZY

LABORATORIES

The courage to carry on . . . and in our modest way we are helping millions of American women to face the present day realities . . . garbed in loveliness and charm.

We have a definite and serious responsibility and we face it with all the resources at our command. In helping to beautify the nation . . . Kolmar helps to arm it with courage and fortitude.

Milwaukee · Newark

Representatives:

Mr. M. C. Boyd, Quinby Building, Newark, N. J.
Mr. Douglas Haggerty, 122 E. 42nd St., New York City
Mr. Warren Curry, 3950 Club Drive, Atlanta, Ga.
Mr. Norman Kole, 980 Merchandise Mart, Chicago, Ill.
Mr. R. F. G. Byington, 1260 N. Western Ave., Los Angeles, Cal.

NEWS

Companies

G. D. Searle Changes

To increase efficiency before moving into its new laboratories G. D. Searle & Co., Chicago, has made the following changes in personnel: Joseph K. Gorman has been transferred from the sales department to become assistant to the secretary-treasurer. He will be primarily concerned with purchases, inventories, etc. David Richards will continue to assist the secretary-treasurer in the office management.

H. S. Backus will take over complete charge of the plant and manufacturing. He will be assisted in the pharmaceutical manufacture by P. W. Schmitt, who will have charge of that division.

Dr. John H. Speer, now in the research department, will become chief chemist, with sole responsibility concerning the quality and perfection of finished products. Dr. Robert T. Dillon of the research department will now head all activities of the analytical department.

J. & J. Advances MacDougall

L. H. MacDougall has been made director of the Red Cross products division of Johnson & Johnson, succeeding L. H. Mercer who resigned recently. E. G. Gerbic who was formerly in charge of the foot products has been placed in charge of the elastic goods, roll cotton and medicated plasters division. I. A. Quackenboss will now be in charge of baby products and foot products.

Mr. MacDougall has been associated with Johnson & Johnson since 1927. After working in Detroit, Toledo and Chicago he was made Chicago divisional sales manager in 1937 and in 1940 he was made director of baby products and medicated plasters division.

Crull Heads Campana

I. Willard Crull, formerly vice-president and director of advertising of Campana Sales Co., Batavia, Ill., has been made president of the company. He succeeds Ernest M. Oswalt, president since 1933, who becomes chairman of the board.

Richard M. Crull, formerly secretary of the company and promotion manager, has been named vice-president, secretary and director of advertising and merchandising while F. E. Pearsall, formerly director of merchandising, becomes vice-president and director of sales. G. W. Connell, formerly in charge of the research and educational department, has been made promotion manager.

Award for Aluminum Adv.

Edward L. Andrew, of Fuller & Smith and Ross has been designated as "industrial advertising manager-of-the-year" by "Industrial Marketing." Mr. Andrew's series, "Aluminum, Defense and You" for the Aluminum Co. of America won the award for him.

Mr. Andrew, who is a vice-president of the agency, featured in the last year's copy the achievements of the Aluminum Co. in the national defense program.

C. C. Carr, advertising director of the Aluminum Co. and director of the Association of National Advertisers, was in charge of the series and with members of his department was instrumental in selection of copy themes.

Dr. Feirer Named V. P.

John S. Zinsser, president of Sharp & Dohme, Philadelphia, has announced that Dr. William A. Feirer has been made a vice-president of the company.

Dr. Feirer was graduated from Rutgers University in 1922 and received the degree of Doctor of Science at the Johns Hopkins School of Hygiene and Public Health. He became a member of the staff of the Johns Hopkins University department of bacteriology and at the same time attended medical school, receiving his degree of doctor of medicine in 1930.

Dr. Feirer became associated with Sharp & Dohme in 1930; he was made director of the scientific department in 1934; director of the biological laboratories in 1936; director of the medical division in 1937; and director of the medical research division in 1940.

Lentheric Sales Convention

Every Lentheric sales representative, having achieved his 1941 Grand Prix quota, attended the sales convention held in New York City the week of January 12, under the direction of W. D. Canaday, vice-president in charge of sales. The staff of nine traveling representatives, in addition to the Lentheric executive staff, was also in attendance. Luncheons were held at the Madison Hotel with the exception of one luncheon which took place at the St. George Hotel in Brooklyn following a tour of the laboratories conducted by Kurt Loesch. A cocktail party was given at the studio penthouse of Frank McIntosh, Lentheric staff artist, on January 13, followed by a theatre party.

Exceptional characteristics of uniformity, purity and inertness make METHOCEL* an outstanding natural gum replacement. Its use in liquid and paste dentifrices, creams, lotions, facial masks, and hair fixatives has proven highly satisfactory. Other applications, such as soaps, disinfectants and emulsions, are equally successful.

METHOCEL possesses great thickening power, requiring minimum solids for any given body. This is especially evident in the higher viscosities—a notable point of economy.

METHOCEL is colorless, inert—free of extraneous matter. It has unusual stability and is unaffected by wide changes in pH conditions. Resistance to mold growth and fermentation is an important quality.

METHOCEL is available in a wide range of viscosity types—from 15 to 4000 cps. For complete information, write the Dowicides Division.

*Trade Mark Reg. U. S. Pat. Off.

THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN

DOW

New York, St. Louis, Chicago, San Francisco,
Los Angeles, Seattle, Houston

USE *Methocel* FOR
PURITY • UNIFORMITY
SMOOTH DISPERSION

WRITE TO DOW TODAY

On January 14 the officers and directors of Lentheric gave a dinner for the sales staff and guests at the University Club. Among the speakers were Lowell P. Weicker, president; Charles S. Gage, vice-president; W. D. Canaday, vice-president in charge of sales; David M. Kendall, assistant sales manager.

Crown Can Advances Searle

F. Gladden Searle has been appointed director of sales for the Crown Can Co. He was formerly vice-president in charge of sales and advertising and started with the organization twenty-two years ago as a sales representative.

Mr. Searle was made district sales manager of the Syracuse office in 1927 and in 1929 he established the first Packers Can Sales office for the Continental Can Co. in New York, with the title of assistant manager of sales, packers cans. A short time later, he was promoted to the position of manager of sales in the same division. In June 1936 Mr. Searle was made general sales manager of the company, and in the fall of the same year vice-president in charge of sales and advertising. Shortly thereafter he was elected to the board of directors.

He is also a director and a member of the executive committee of the Worthington Pump and Machinery Corp., Harrison, N. J.

F. H. Braithwaite will continue as vice-president in charge of general line sales, and S. Carle Cooling as general manager packers cans sales. Mr. Searle will make his headquarters in Philadelphia.

Owens-Illinois Changes

A number of important changes in the sales executive personnel of Owens-Illinois Glass Co. have been announced by Smith L. Rairdon, vice-president and general sales manager.

Clark L. Rodgers, who has been New York branch manager, was promoted to the position of eastern sales manager to succeed the late Paul Muller. James W. Colbert of New York, manager of the liquor ware and wine bottle division will succeed Mr. Rodgers as branch manager there.

R. W. Sterrett, assistant manager of the Atlanta branch, will take over the duties of branch manager there, succeeding J. A. Runnels who will devote his entire time to his duties as southern sales manager.

In the Toledo office R. E. Delaplane will assume the duties of liquor ware and wine bottle division manager in addition to his former position as head of sales in the closure and plastics division. L. S. Goodbody will be Mr. Delaplane's assistant in liquor ware sales and L. G. Phillipps in closure and plastic sales.

To give further assistance to Harry M. Smith in the sales department, William L. Russell has been brought into the organization.

Those in charge of the main divisions remain the same, with Paul E. Tillman, secretary-treasurer, supervising all activities of finance and manufacture; Dr. A. L. Raymond being responsible for research, pharmacology and control procedures; Harry M. Smith in charge of sales and advertising; Dr. R. S. Kemp supervising clinical investigation and advertising copy.

The personnel of the research and pharmacology laboratories is being enlarged and new men engaged so that they will be available when the new laboratories are ready for occupancy.

J. T. Baker Fellowships

Announcements of the J. T. Baker Chemical Co. research fellowships in analytical chemistry for the academic year 1942-1943 have been made through brochures widely distributed to colleges and universities. Two of these fellowships are to be granted and each carries an award of $1,000. One is awarded to a graduate student in analytical chemistry attending an eastern university and the other to a graduate student at a midwestern university. Applications should be made before February 15, 1942 to Professor John H. Yoe, University of Virginia, University, Va., for the eastern fellowship, and to Professor H. H. Willard, University of Michigan, Ann Arbor, Mich. for the midwestern fellowship.

BEAUTY FASHION Awards

Beauty Fashion, retail perfume and cosmetic magazine, has announced that the Toilet Requisites Awards for 1941 have been presented to Charles of the Ritz for packaging; to Elizabeth Arden for advertising; to Houbigant for promotion; and to Coty for merchandising policy.

The Toilet Requisites Awards were established several years ago to encourage the maintenance of a high standard of merchandising practices in the perfume and cosmetic industry.

Winthrop Fined $15,800

A fine of $15,800 was imposed on Winthrop Chemical Co., January 28, by Federal Judge Simon H. Rifkind. The fine was based on the company's admission that it had shipped in interstate commerce an adulterated product improperly labeled as sulfathiazole tablets. The tablets had been contaminated by phenobarbital.

Award Sponsored by Coty

Grover A. Whalen, chairman of the board of Coty, has announced an annual American fashion critic's award to be given by Coty. The award will consist of a trophy and a check for one thousand dollars. These prizes will go to the professional designer who originates the trend that, in the opinion of the judges, becomes the outstanding style trend of the year.

Executives at Magnus, Mabee & Reynard, Inc. listen to technical session held for salesmen from all over the country during recent 3 day convention at the Hotel Warwick, New York. Left to right—J. B. Magnus, Vice-President; R. C. Ringgold, Assistant to President; famed New England Philosopher and manufacturer, Billy B. Van; Percy C. Magnus, President; R. B. Magnus, Vice-President.

BEAUTY FASHION Covers in National Exhibition

Three of the 1941 covers of BEAUTY FASHION, designed by Robert L. Leonard, were part of the seventeenth annual National Commercial Printing Exhibition, presented by The American Institute of Graphic Arts, January 8-24, at the Ben Franklin Gallery, Advertising Club of New York. Twelve regional exhibitions were held in various parts of the country and from each one an appointed jury selected specimens to represent that region in this National Exhibition, which goes on tour after its New York appearance. Mr. Leonard was also one of the speakers at the opening on January 8.

Colgate Advances Healy

Robert E. Healy has been appointed advertising manager of Colgate-Palmolive-Peet Co., it has been announced by E. H. Little, president. Mr. Healy has been with the company in its advertising department for the past eight years and has recently served as advertising manager on certain Colgate products. Savington Crampton and George MacGregor have been made assistant advertising managers.

Daggett & Ramsdell Meeting

Daggett & Ramsdell sales representatives were in New York for meetings at the Hotel Pennsylvania December 29 and 30. William Bonyun, sales manager, directed the meetings at which the accomplishments of the past year were reviewed and the 1942 program discussed in detail, including advertising, products and a number of new promotional plans.

Green Made Treasurer

Arthur Green has been made treasurer of Lucien Lelong, Inc., Chicago, and transferred to the purchasing division, with head-quarters in that city. He has been with the company since shortly after its organization. He was formerly in charge of metropolitan cities in the eastern area.

Heidbreder Heads Helfrich in Chi.

Grant Heidbreder has been made manager of Helfrich Laboratories in Chicago. He was formerly St. Louis manager of Bayer Aspirin and prior to that was general manager of Alice Corry Cosmetics.

FOSTER-FORBES GLASS CO. SALES CONFERENCE DINNER

Foster-Forbes Sales Meeting

Foster-Forbes Glass Co., Marion, Ind., held a sales conference at the Spencer Hotel, December 29 and 30. This was the first time that the sales representatives of the company have been brought together for a meeting of this kind. Problems of sales and production were discussed and a banquet followed by entertainment was held in the Emerald Room of the Spencer Hotel on the 29th.

Dr. Isherwood Heads Bush

Dr. P. C. C. Isherwood, O.B.E., Ph.D., F.I.C., managing director of W. J. Bush & Co., Ltd., London, has been appointed chairman and managing director of the company and president of its associated companies, W. J. Bush & Co., Inc., New York, and W. J. Bush & Co., (Canada) Ltd., Montreal.

Appointed Publicity Director

Beryl Blake has been appointed publicity director for Kathleen Mary Quinlan, Inc., and Parfums Corday, New York. Miss Blake joined Marie Earle early in 1932 and since then has been associated with Barbara Gould, Bourjois, and, for the past five years, Kathleen Mary Quinlan.

Solon Palmer Booklet

Solon Palmer has published an attractive little booklet, called "American Memories of Solon Palmer." The booklet which is illustrated with a photograph of the founder of the company and many line drawings tells the story of the Palmer family since its arrival in this country in 1635 and in particular with the history of the company founded by Solon Palmer in 1847. The booklet is being distributed to purchasers of Palmer's American Memories toiletries. Copies are available upon request.

Smith, Kline & French 100th Anniversary

The annual meeting which marked the close of the year's business for Smith, Kline & French, Philadelphia, also marked the completion of the company's first hundred years in business. J. Mahlon Buck, president of the company, who became associated with it twenty-five years ago, was given an engraved watch by the executives and members of the sales staff in honor of his first quarter of a century of service.

Cochran Sales Meeting

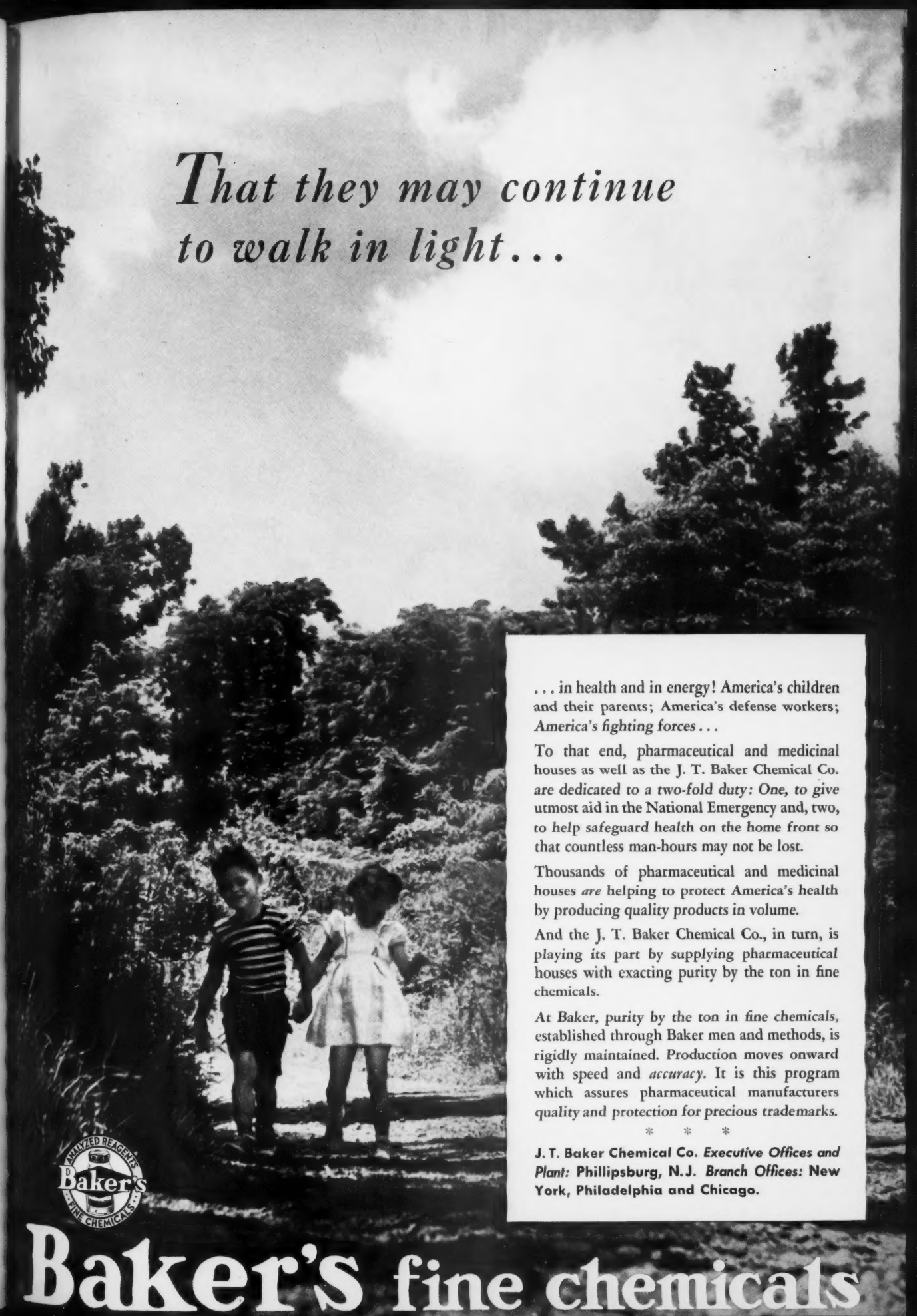
A ten day series of sales meetings and training courses for the eastern states personnel of Jacqueline Cochran Cosmetics closed at the Belmont Plaza Hotel, New York, January 21. The sessions were under the direction of Ethyl G. Hobson, sales supervisor, and included talks by H. D. Goulden, general manager and head of the Cochran laboratory at Roselle, N. J.; Gertrude Brows, advertising and sales promotion manager; and Genevieve Crowley, New York office manager.

Marc See Heads Doraldina

Marc See has been appointed president and general manager of Doraldina Cosmetics, Inc., and of Couturiers Perfumes, Inc., New York. After having acquired thorough training in cosmetic merchandising in the United States, he was general manager of the Charles of the Ritz European business with headquarters in Paris. Since his return from Europe, he has been associated with Charles of the Ritz in New York.

Schnefel Bros. Sales Meeting

The Schnefel Bros. 1942 sales meeting was held at the Newark factory, from January 5 through 9. The entire sales force of the Schnefel Bros. Corp. attended.


That they may continue
to walk in light...
. . . in health and in energy! America's children and their parents; America's defense workers; America's fighting forces . . .
To that end, pharmaceutical and medicinal houses as well as the J. T. Baker Chemical Co. are dedicated to a two-fold duty: One, to give utmost aid in the National Emergency and, two, to help safeguard health on the home front so that countless man-hours may not be lost.
Thousands of pharmaceutical and medicinal houses are helping to protect America's health by producing quality products in volume.
And the J. T. Baker Chemical Co., in turn, is playing its part by supplying pharmaceutical houses with exacting purity by the ton in fine chemicals.
At Baker, purity by the ton in fine chemicals, established through Baker men and methods, is rigidly maintained. Production moves onward with speed and accuracy. It is this program which assures pharmaceutical manufacturers quality and protection for precious trademarks.
* * *
J. T. Baker Chemical Co. Executive Offices and Plant: Phillipsburg, N.J. Branch Offices: New York, Philadelphia and Chicago.
ANALYZED REAGENTS
Baker's
FINE CHEMICALS
Baker's fine chemicals

Packaging Insurance

BRINGS 3 CHEERS

SIS-S-S—

SAYS THE FOREMAN who's in charge of sealing:
"Talk about a work horse! The Alseco Sealing Machine hardly ever needs a rest for repairs or adjustments. It's a speed demon, too. I'm strong for Packaging Insurance."

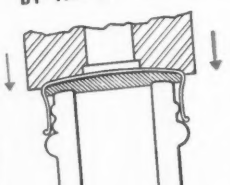
BOOM—

SAYS THE RETAILER who's in the middle, selling:
"Haven't had a leaker for a *long* time! Nor anybody complaining they didn't get all that's coming to them. Must be those Alseco Seals do a better job of sealing."

AH-H-H!

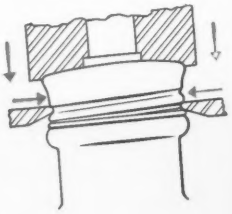
SAYS THE WOMAN who buys and buys and buys:
"I'm not Tarzan! Just his mate! Why can't all caps be as easy to open as this one? Another thing I like is the way it keeps the product just right. Really fresh!"

HOW YOU GET "PACKAGING INSURANCE" BY THE ROLLED-ON METHOD OF SEALING



1. Plain-skirted Alseco Seal is uniformly seated. Under stationary top pressure, container lip is embedded in liner evenly all around.

2. While held in that position, threads are Rolled-On to conform exactly to threads on container. Each seal is tailor-made, fits perfectly.



Trade Mark Reg. ALSECO SEALS U. S. Pat. Off.

"Packaging Insurance" can even be "written" to protect your product from tampering. There are several types of Alseco Rolled-On Seals that prevent adulteration, substitution and pilfering.

Or, if your product is of such a special nature that no standard closure quite meets your needs, the R-O sealing principle may be adapted to give you a seal specially designed for your purposes.

* * *

War has stopped the sale of Aluminum for seals. However, most types of Alseco Seals can be supplied in metals other than Aluminum.

TAILOR-MADE

ALSECO SEALS

ALUMINUM SEAL COMPANY, 1323 THIRD AVENUE, NEW KENSINGTON, PA... At your service: 28 years of experience building quality seals and sealing machines.

ROSSVILLE HEXAGON COLOGNE SPIRITS

The delicate fragrance of your finest perfumes is best developed and preserved with Rossville Hexagon Cologne Spirits. Unsurpassed in purity, clarity, and freedom from foreign odor, this alcohol assures the character of your most exquisite bouquets.

Distilled exclusively from grain, Hexagon Cologne Spirits is the crowning achievement of nearly a century of experience in the production of Fine Rossville Alcohols. Exacting scientific control of all the production and purification processes guarantees its high quality and absolute uniformity. For the very best in alcohol, specify Rossville Hexagon Cologne Spirits.

The seventeenth annual banquet of the Drug, Chemical and Allied Trades Section of the New York Board of Trade will be held Thursday, March 12, 1942, at the Waldorf-Astoria in New York City. Make your reservations now!

COMMERCIAL SOLVENTS
Corporation
17 EAST 42nd STREET, NEW YORK, N. Y.

ROSSVILLE ALCOHOLS • BUTYL STEARATE • ACETONE • AMINO-METHYL-PROPANEDIOL

Carnation #300

An outstanding reproduction of the fragrance of this ever popular flower. Can be used to advantage wherever an intense, economical perfume is indicated.

It will repay you to investigate its possibilities.

Priced at only $4.00 per pound.

Lower for quantities and contractual requirements.

Samples available to manufacturers only.

ORBIS

PRODUCTS CORPORATION

215 PEARL STREET, NEW YORK · FACTORY & LABORATORY, NEWARK, N.J.

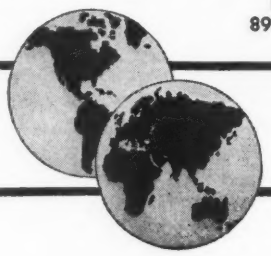
CHICAGO
831 N. Wabash Ave.

PHILADELPHIA
610 Brown Bldg.

BOSTON
89 Broad Street

MEMPHIS, TENN.
1620 Carr Ave.

Water Soluble Gums	Waxes	Cosmetic Raw Material	Fruit Flavors
Thymol	Stearic Acid	Oleo Resins	Food Colors
Aromatics	Essential Oils	Perfume Bases	Quince Seed
Rice Starch	Zinc Oxide French	Olive Oil	Irish Moss



Lehn & Fink Offers Facilities

Edward Plaut, president of Lehn & Fink Products Corp., has announced that his firm is equipped to take over temporarily, on behalf of those manufacturers whose factories or machinery may be essential to war work, the manufacture of cosmetic, drug and other products requiring mixing and filling equipment. He points out that the one important and absorbing effort in America today is the all out successful prosecution of the war and that this involves the need for every bit of productive capacity of such plants as are well-suited to the production of war materials.

EDWARD PLAUT

Mr. Plaut refers to Great Britain's highly satisfactory experience in this respect where consolidation and concentration of civilian goods production has proved that products can be sub-manufactured at low cost without affecting patent and proprietary rights in any way. He adds that America is even more happily situated in this respect since it has so many fine plants splendidly equipped to handle such consolidated production for so long as the emergency should make it necessary to use all suitable equipment and strategically located factories for war production.

Isco Celebrates 25th Year

The Isco Chemical Division, Innis Speiden & Co., is this year celebrating its twenty-fifth anniversary. In 1917, the year that America entered the first World War, an electrolytic plant started operations at Niagara Falls, N. Y., as the Isco Chemical Co., Inc., under the direct supervision of Eben C. Speiden.

The first products manufactured were chlorine and caustic soda. Tetrachloride was soon added and in 1918 caustic potash was first produced and today the factory, operating as the Isco Chemical Division of Innis, Speiden & Co. is one of the largest sources for potash salts products.

The research laboratories have developed iron chloride for industrial purposes and especially for use in water and sewage treatment.

Delivery truck outside the Mexican branch of George Lueders & Co., Inc. indicates that this company is following the lead of the government in developing trade with out Latin-American neighbors.

Lueders Makes Price List Change

A new price list has just been issued by George Lueders & Co., New York. A completely new arrangement of material has been adopted and it is believed that the new form will make the catalog more convenient to use. Heretofore there have been listings under "Essential Oils," "Aromatic Chemicals," "Sundries," "Miscellaneous," "Our Specialty," etc. Many cross references were of course necessary. The new list is compiled alphabetically and covers "Essential Oils," "Aromatic Chemicals," "Sundries," etc., all under one heading, "Basic Materials." Copies of the new price list are available upon request.

Aridor in New York

Aridor Co., Chicago, has announced that it is now represented in New York city and vicinity and in the New England states by J. N. Davies, formerly sales manager of Henry Barroll & Co. Mr. Davies is making his headquarters at 100 East 42 St., Room 1002, New York.

J. P. Swift, formerly representing Aridor in Philadelphia and Baltimore is now covering western New York State and making his headquarters at Buffalo. J. R. Carroll, whose office is at 1211 Commercial Trust Building, succeeds Mr. Swift in Philadelphia. Both Mr. Swift and Mr. Carroll are members of the Olean Glass sales organization.

Vitamin Determination

Coleman Electric Co., Inc., Maywood, Ill. has issued two new publications—Bulletin B-103 which describes the electronic photofluorometer used for vitamin determinations and Bulletin T-108, a strictly technical publication which is a resume of Vitamin B_1 and B_2 analytical technics to date. Copies of these publications are available from all Coleman dealers.

Dreyer Issues Catalog

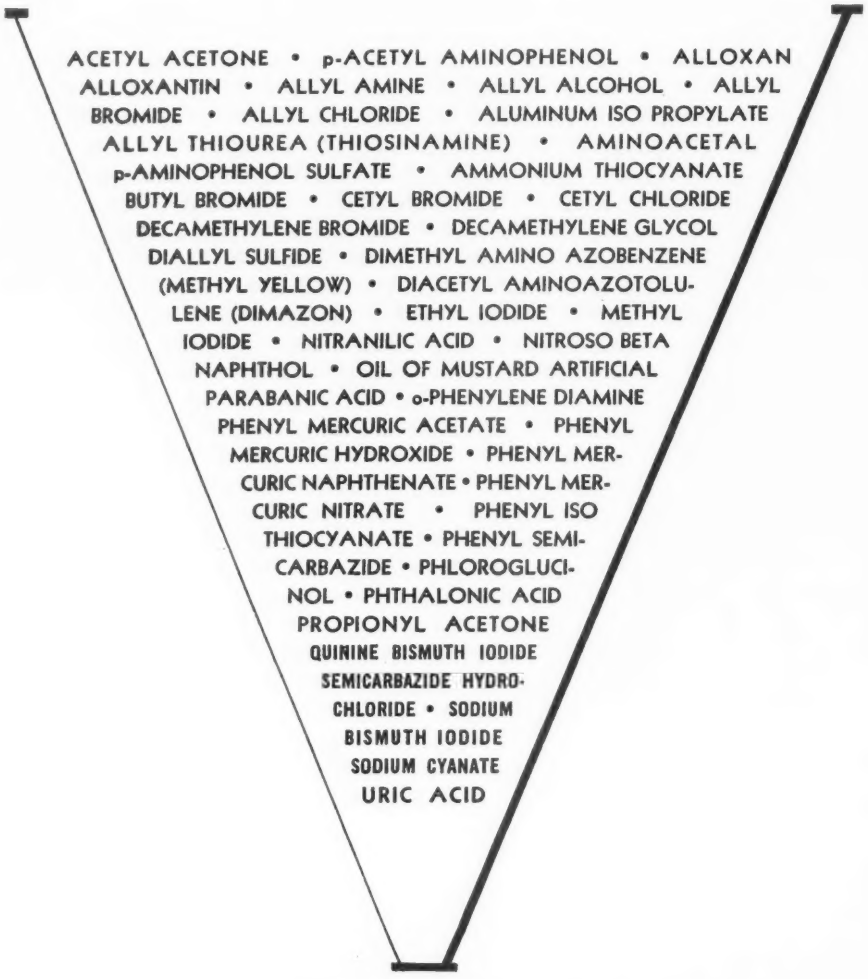
P. R. Dreyer Inc. has issued a new twenty-page catalog "B" listing its perfume specialties under seventy-five different products for which they may be used. Prices, although subject to change, are quoted with the thought that they will help the buyer in making his selection. Convenient tables of weights and measures are also included. Copies are available upon request.

Warner in Chicago

The Chicago office of Warner Chemical Co. has been moved to new quarters in the Board of Trade building, 141 West Jackson Boulevard. W. Newel Wyatt is the divisional sales manager in charge of the midwestern territory for Warner Chemical Co., Magnesol Co., and California Chemical Co.

Rapid Sales Rise

Rapidly rising sales, which have compelled Personal Products Corporation here to operate four shifts on a twenty-four hour a day basis, caused shareholders to vote to increase the number of directors and officers of the company.


ACETYL ACETONE • p-ACETYL AMINOPHENOL • ALLOXAN
ALLOXANTIN • ALLYL AMINE • ALLYL ALCOHOL • ALLYL
BROMIDE • ALLYL CHLORIDE • ALUMINUM ISO PROPYLATE
ALLYL THIOUREA (THIOSINAMINE) • AMINOACETAL
p-AMINOPHENOL SULFATE • AMMONIUM THIOCYANATE
BUTYL BROMIDE • CETYL BROMIDE • CETYL CHLORIDE
DECAMETHYLENE BROMIDE • DECAMETHYLENE GLYCOL
DIALLYL SULFIDE • DIMETHYL AMINO AZOBENZENE
(METHYL YELLOW) • DIACETYL AMINOAZOTOLU-
LENE (DIMAZON) • ETHYL IODIDE • METHYL
IODIDE • NITRANILIC ACID • NITROSO BETA
NAPHTHOL • OIL OF MUSTARD ARTIFICIAL
PARABANIC ACID • o-PHENYLENE DIAMINE
PHENYL MERCURIC ACETATE • PHENYL
MERCURIC HYDROXIDE • PHENYL MER-
CURIC NAPHTHENATE • PHENYL MER-
CURIC NITRATE • PHENYL ISO
THIOCYANATE • PHENYL SEMI-
CARBAZIDE • PHLOROGLUCI-
NOL • PHTHALONIC ACID
PROPIONYL ACETONE
QUININE BISMUTH IODIDE
SEMICARBAZIDE HYDRO-
CHLORIDE • SODIUM
BISMUTH IODIDE
SODIUM CYANATE
URIC ACID

By supplying the above and other pharmaceutical intermediates which are difficult to obtain, The Edwal Laboratories, Inc., is collaborating with many manufacturers in speeding up the production of drugs, medicine, and other defense products . . . . Whether or not the item you need is listed, it will pay you to consult Edwal regarding your specific requirements.

MANUFACTURING DIVISION

The EDWAL *Laboratories, Inc.*

732 FEDERAL STREET
CHICAGO. ILL.

Schimmel Price List

Although the publishing of a price list under today's conditions is far removed from the simplicity of other years, Schimmel & Co., Inc., has braved the difficulties and brought forth a new list of their products and specialties for the perfume, cosmetic, and allied trades.

Prices today will no more stay stable long enough for a price list to be published, or even mailed, than a puppy will sit for his portrait. Schimmel observes this fact on its index page, but promises lowest current prices, whatever changes may have occurred.

New features of this unusually complete 24 page list are its more convenient size, being much more compact and handy than its predecessor, and its extensive perfume compound and bases section, with a guide indicating what products each compound is best suited for, and giving the solubility of the compound at the same time.

The technical section is also very complete, as are the essential oil and aromatic chemical pages, and the whole seems very well planned and organized.

People

Mullen-Olmsted

Mr. and Mrs. Albert E. Mullen of Pelham, N. Y., announce the engagement of their daughter, Edith Jessie Mullen, to Lieut. Burton L. Olmsted, U. S. Army Air Corps. The bride-elect is a graduate of the College of New Rochelle. Lieut. Olmsted, who is a graduate of the College of the Pacific, has just completed training at New York University and Chanute Field and is now stationed at Luke Field, Phoenix, Ariz. Albert E. Mullen is general manager of the APLI division of Allied Products, Inc., New York.

Mildred Roe, of Schimmel, Marries

Mr. and Mrs. Oscar F. Thompson who were married December 27 spent their honeymoon in Florida and are now making their home in Hackensack, N. J. where Mr. Thompson is assistant principal of the high school.

Mrs. Thompson, before her marriage, was Mildred Roe, former purchasing agent of Schimmel & Co.

Dr. Dow to Serve M.I.T.

Dr. Willard H. Dow, president of Dow Chemical Co., Midland, Mich., has been elected to a special term of five

WILLARD H. DOW

years on the corporation of the Massachusetts Institute of Technology. Dr. Dow is a member of the advisory board of the Chicago Chemical Procurement District of the Chemical Warfare Service, U. S. A.

Hindle Returns from Canada

J. L. Hindle, vice-president of Standard Synthetics, Inc., New York, has returned from a two weeks' business trip to Canada. He visited Toronto and Montreal and spent some time with the firm's customers in both cities. Part of the trip was made by Trans-Canada Air Lines in below zero weather.

De Sieyes Resigns

Jacques De Sieyes, the personal American representative of Free French Leader General De Gaulle since June, 1940, has left New York to serve as a major under General Catroux, Commander of the Free French Forces in the Middle East. Mr. De Sieyes has resigned as vice-president and treasurer of Jean Patou, Inc. Philip Smolowe has been appointed vice-president of Jean Patou, Inc.; J. Warren Kane, vice-president in charge of sales, and John W. Browning, treasurer.

Dolian In Service

Frank E. Dolian of Commercial Solvents Corp., Terre Haute, Ind., reported January 14 for active duty as a lieutenant with the U. S. Army. Frank E. Maple has taken over the work formerly handled by Dr. Dolian which consists of technical service and market development activities in connection with the introduction of new chemicals, particularly the nitroparaffins.

Mr. Maple is a graduate of the University of Illinois and has been with Commercial Solvents since 1936 in its production, research and trade relations divisions.

Banta-Stewart

Guy J. Banta, branch manager of Shulton's Los Angeles office, was married December 27 at Las Vegas, Nevada, to Dorothy Stewart of Los Angeles. Miss Stewart formerly was a traveling representative for Jacqueline Cochran.

Bill Adkin Recovering

William H. Adkins of Schimmel & Co., New York, is recovering from a prolonged and severe illness. He still is not able to get around town but his condition is greatly improved.

Warren in Active Service

Northam Warren, Jr., vice-president and sales manager of the Northam Warren Corp., Stamford, Conn., has entered active military service as First Lieut. in a Field Artillery unit. During his absence in the service, Mr. Warren will be succeeded by Chester H. Briggs, as acting sales manager. Mr. Briggs will be assisted by Alfred C. Wakefield, who will continue in his capacity as assistant sales manager and office manager, and by Douglas J. Bennet as sales promotion manager, both of whom have been with the company for a number of years.

Associations

DCAT Dinner Plans

Approximately one hundred members of the reception committee for the 17th annual Drug, Chemical and Allied Trades banquet which will be held March 12 at the Waldorf-Astoria, New York, met January 21 at an informal cocktail party to formulate plans for the dinner.

Victor E. Williams, eastern sales manager of Monsanto Chemical Co. and chairman of the committee said, "Advance reservations are heavier than a year ago leading us to believe last year's attendance of 1900 will be surpassed particularly in view of our decision to donate the net proceeds to the American Red Cross."

Mr. Williams then introduced S. B. Penick, Jr., executive vice-president of S. B. Penick & Co., and chairman of the section; Joseph A. Huisking, vice-president of Fritzsche Brothers; C. O. Lind, Dow Chemical Co., president of the Salesmen's Association of the American Chemical Industry and vice-chairman of the reception committee for the dinner; and John C. Ostrom, secretary of the section, all of whom spoke briefly.

Brooks Heads Drive

H. L. Brooks, president of Coty, Inc., has been appointed divisional chairman, cosmetics division, merchandise group, of the Defense Savings Bond Campaign. A letter and a questionnaire have been sent by Mr. Brooks to every company in the cosmetic industry, and it is urgently requested that all firms reply to this as soon as possible so that proper steps may be taken to contact those which may not yet have purchased bonds outright or which have not yet proposed the pay-roll allotment plan to their personnel.

"Outside of the obvious reasons for believing every American should not

H. L. BROOKS

only buy bonds and stamps, but also continue to do so on a weekly or monthly basis," says Mr. Brooks, "I believe that our industry certainly wants to make a showing comparable to all others." Mr. Brooks further states, "In my opinion, since there may be in the new tax bill a withholding tax, it seems logical to assume that if the country as a whole makes a very splendid showing on a voluntary basis that the percentage of the withholding tax might be less. Whether one or the other is true, it is always better to do things voluntarily and graciously than to be forced to do them."

Of the companies approached by Mr. Brooks from which he has received reports, subscriptions from employees and executives under the allotment plan have been highly satisfactory. The actual figures up to January 23 were: 1631 approached of which 1182 have subscribed on a weekly deduction of $2,692.84; in addition, the same employees purchased $15,205.75 worth of bonds outright and the companies $207,500, making a total of $337,000.

Mr. Brooks is devoting whatever spare time he can to this effort and has talked and plans to talk to as many groups in his division as he possibly can. For any further information regarding the purchase of defense bonds and the pay-roll allotment plan, write to H. L. Brooks, c/o Coty, Inc., 423 West 55th St., New York.

V. H. Fischer Heads Essential Oil Dealers

V. H. Fischer of Dodge & Olcott Co. was elected president of the Essential Oil Association of the U. S. A. at its annual meeting January 9 at the Hotel Warwick, New York. John H. Montgomery, secretary of Fritzsche Brothers, Inc. was elected vice-president, and Robert B. Magnus, Magnus, Mabee & Reynard, Inc. was sustained as secretary-treasurer.

Charles Fischbeck, vice-president of P. R. Dreyer, Inc., and H. C. Ryland, of H. C. Ryland, Inc., were elected members of the executive committee.

William B. Schilling, Norda Essential Oil & Chemical Co., and chairman of the organization's activities, reported on the growth of the association during the past year; Robert B. Magnus presented the financial report, and Gert Keller, Schimmel & Co., Inc., chairman of the nominating committee, presented the slate for the election of new officers.

Dr. Eric C. Kunz, Givaudan-Delawanna, Inc., chairman of the scientific section, gave a resume of the work of his committee in cooperation with the U.S.P. and N.F. authorities on the new monographs for essential oils which will appear in the revisions of the books now in preparation.

The meeting was held at six o'clock and was followed by cocktails, the annual banquet and entertainment.

Walden Heads Gum Importers

C. F. Walden, Thurston & Braidich, has been elected president of the Ameri-

C. F. WALDEN

can Gum Importers Association; O. G. Innes Corp., has been elected vice-president and G. T. Hawxhurst, S. Winterbourne & Co. secretary-treasurer.

BIMS Buy Bonds

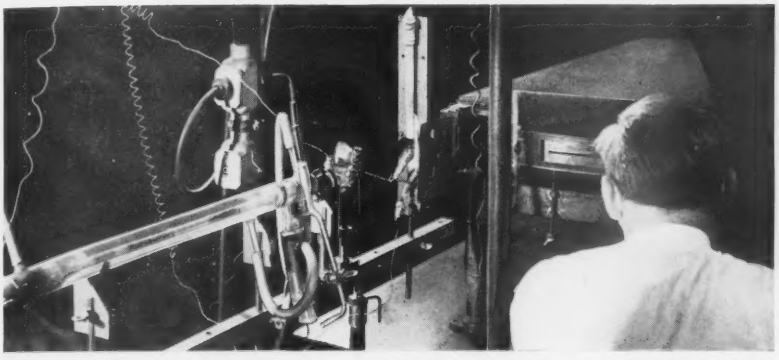
Ten fifty dollar defense bonds were distributed at the annual dinner of the BIMS of New York at the Hotel Lafayette, New York, on January 22 as a result of chances sold among the 150 members and guests who attended. Martin Schultes of the Hewitt Soap Co.,

ANNUAL MEETING OF THE ESSENTIAL OIL DEALERS' ASSOCIATION

U.S.I. ALCOHOL NEWS

February ★ A Monthly Review of Technical Developments for Chemists and Executives ★ 1942

SPECTROGRAPHIC TESTS HELPFUL IN CONTROL OF ALCOHOL PURITY



Spectrographic analysis of alcohol is employed by U.S.I. to supplement chemical tests, and to provide an additional safeguard of the high quality and purity of U.S.I. Alcohol.

Method is Employed by U.S.I. to Supplement Chemical Procedures

Spectrographic tests, by which the presence of small amounts of certain impurities can be detected, are extensively employed by U.S.I. as an additional safeguard of the high quality of its alcohol.

An excellent index of the purity of alcohol can be obtained by studying its absorption of ultra-violet light. Ethyl alcohol in a very pure state is almost as transparent to ultra-violet light as distilled water, but certain impurities decrease its transparency. Hence it is possible to obtain valuable information on alcohol purity by subjecting a sample to ultra-violet rays. Though these rays are invisible to the eye, the spectroscope provides a means of recording the transmission of the rays on a photographic film.

LIQUID POWDERS POPULAR FOR ARMS AND SHOULDERS

Liquid powders are among the most popular preparations for make-up of arms and shoulders, and are used also to increase the covering power of face powders.

Typical preparations of this type consist of suspensions of such substances as zinc oxide, titanium dioxide, or colloidal kaolin, with bentonite often used to aid in maintaining the suspension. The suspending medium may consist of a mixture of water and ethyl alcohol.

TECHNICAL DEVELOPMENTS

For further information, write U.S.I.

Color comparison of cosmetic products is simplified by a new, easily portable instrument, it has been announced. It is said that the device permits comparison of shades under ordinary artificial light and under artificial daylight, as well as under any one of three color filters. **(No. 540a)**

A synthetic detergent is said to have a wide range of usefulness in improving the cleaning and emulsifying properties of a variety of cleaning compounds, including car-washing materials, rug-shampoos, and floor-cleaners. **(No. 541a)**

New aromatic chemicals recently announced, to replace imported materials, include indol, diphenyl methane, styrallyl acetate, and a perfume grade of styrene. **(No. 542a)**

A synthetic rhodinol can be used to replace natural rhodinol in all types of toilet preparations, according to the manufacturer. The new compound is not dependent on geranium Bourbon for its supply. **(No. 543a)**

An amorphous wax is described as an entirely new type developed specifically for cosmetic and pharmaceutical applications. Maker says that the wax has a high degree of plasticity, is free from objectionable crystalline particles, holds oil without sweating, contributes to easy spread and smoothness. **(No. 544a)**

The concentrated solution of aluminum acetate, described in the November issue of U.S.I. ALCOHOL NEWS (No. 512a) is primarily intended for use in the manufacture of Burow's Solution N.F. and Solution Aluminum Subacetate N.F., rather than for general commercial use, the manufacturer has pointed out.

DRUG TRADES BANQUET TO BE HELD MARCH 12

The 17th Annual Drug, Chemical, and Allied Trades Banquet will be held on March 12 at the Waldorf-Astoria, New York. The banquet is sponsored by the Drug, Chemical, and Allied Trades Section of the New York Board of Trade, and proceeds will go to the Red Cross.

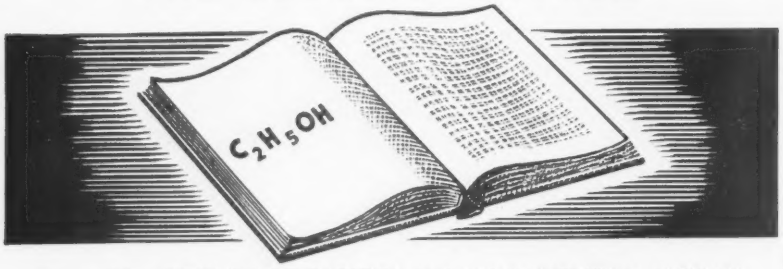
LIQUID DEODORANTS REMAIN IN FAVOR WITH CONSUMERS

Liquid deodorants continue to demonstrate their popularity with many consumers. In the formulation of products of this type, alcohol is frequently used to confer desirable properties. In addition to its antiseptic characteristics, alcohol has the advantage of increasing evaporation rate.

U.S.I. INDUSTRIAL CHEMICALS, INC.

60 EAST 42ND STREET, NEW YORK — CHEMICALS: INDUSTRIAL, ANTI- / SOLVENTS: ALCOHOLS, FREEZE — USI SERVICE TO INDUSTRY — BRANCHES IN ALL PRINCIPAL CITIES

THE ALCOHOL PRIMER



NO. 10 OF A SERIES ON THE SELECTION AND USE OF INDUSTRIAL ALCOHOL

Miscellaneous S.D. Formulas

The majority of the most important S.D. Formulas authorized for use in the manufacture of drugs and cosmetics have been described in previous articles in this series. There are, however, a number of other formulas with certain authorized uses in these industries.

S.D. Alcohol No. 1, for example, may be used as a solvent in the manufacture of shampoos, toilet soaps, and bath salts, and of external pharmaceuticals not U.S.P. or N.F. In addition, it may be used for the extraction, precipitation, and crystallization of pectin, other food products, crude drugs, glandular products and digestive ferments, vitamins and related products, medicinal chemicals (including alkaloids), miscellaneous drugs (including tablet manufacture), perfume materials, and fixatives. Since this formula is prepared by adding 5 gallons of approved wood alcohol to 100 gallons of ethyl alcohol, this formula may not be as desirable for some of the cosmetic purposes as certain of the formulas already described.

S.D. Alcohol 2B, 3A, and 3B

S.D. Alcohol 2B is authorized for use in the extraction, precipitation, and crystallization of the products already listed in this classification under S.D. 1. S.D. 2B is prepared by adding 0.5 gallon of benzol to 100 gallons of ethyl alcohol, and must be used in a closed and continuous process unless it can be shown that this is not practicable.

S.D. 3A is made by adding 5 gallons of commercially pure methanol to 100 gallons of ethyl alcohol. This formula may be used in the manufacture of shampoos, toilet soaps, and bath salts, and for a number of extraction, precipitation, and crystallization purposes.

S.D. 3B is authorized for use as solvent in the manufacture of hair and scalp preparations, shampoos, toilet soaps, and bath salts. Here the denaturant is 1 gallon of pine tar (Pix Liquida U.S.P.) for every 100 gallons of ethyl alcohol.

S.D. Formulas 12A and 13A

S.D. 12A is of interest to the drug and cosmetic industry chiefly for extraction, precipitation, and crystallization purposes. The formula is prepared by adding 5 gallons of benzol to 100 gallons of ethyl alcohol.

S.D. 13A consists of 100 gallons of ethyl alcohol and 10 gallons of ethyl ether. An important use of this formula is the manufacture of collodion. The pyroxylin (nitrocellulose) used in the manufacture of collodion is not soluble in either ethyl alcohol or ethyl ether alone. However, it can be dissolved in the alcohol-ether mixture provided by this formula.

S.D. 13A is also authorized for use in extraction, precipitation, and crystallization of the products mentioned under S.D. 1.

Other formulas with authorized uses in the drug and cosmetic industry will be considered in the next issue of U.S.I. Alcohol News.

(Throughout this article, the term *authorized uses* refers to the purposes for which specially denatured formulas may normally be used under the regulations of the Alcohol Tax Unit. Mandatory priorities now in effect, however, may limit the availability of alcohol for certain of its authorized uses.)

HERE AND THERE

Coffee blossoms may provide the source of a new essential oil to replace some of the materials no longer available from abroad. The Puerto Rico Agricultural Experiment Station of the United States Department of Agriculture has been studying the potentialities of the essential oil from the coffee blossom, and reports that it has an agreeable odor. It is believed that the oil can be used in place of such materials as mimosa and jasmin in the blending of delicate perfumes.

Solidified Cosmetics

Solidified sticks of perfume, cologne, and other alcoholic cosmetics may be the basis of a new vogue. One of the private label houses has developed a means of making the solidified forms of cosmetic preparations that contain alcohol. It is said that the stick forms leave practically no residue when they are applied.

Alcohol Supplies

New light on the status of alcohol supplies for the manufacture of drugs and cosmetics was given by an order issued early last month by the OPM. In accordance with the terms of this order, no restrictions will be placed by the government on the quantities of ethyl alcohol which may be used by the manufacturers of health supplies and biologicals. Health supplies include such products as antitoxins, surgical dressings, hospital equipment, adhesive plasters, and medicinal chemicals.

Manufacturers of proprietary medicines may use as much alcohol as they did last year. In toiletries and cosmetics, however, the order restricts the quantities which may be used, beginning the first of this month, to 70% of the amount used in the corresponding month last year.

Private Label Service

A face powder described as having unique properties is reported available in any color and in large quantities from a private label house. According to the manufacturer, the powder is produced by a high air pressure process perfected in 1929. Until recently, however, the material has been available only in very limited quantities.

Some of the advantages claimed for the process are uniform particle size, fine texture, and good color distribution. The powder is also said to be characterized by smooth application, imperviousness to water or perspiration, good adherence, and lasting qualities.

U.S.I. INDUSTRIAL CHEMICALS, INC.

60 EAST 42ND STREET, NEW YORK — BRANCHES IN ALL PRINCIPAL CITIES

CHEMICALS INDUSTRIAL ANTI- USI SERVICE TO INDUSTRY SOLVENTS ALCOHOLS FREEZE

ALCOHOLS
Amyl Alcohol
Butanol (Normal Butyl Alcohol)
Fusel Oil—Refined

Ethanol (Ethyl Alcohol)
Specially Denatured—All regular and anhydrous formulas
Completely Denatured—all regular and anhydrous formulas
Pure—190 proof, C.P. 96%, Absolute
U.S.I. Denatured Alcohol Anti-freeze
*Super Pyro Anti-freeze
*Solox Proprietary Solvent
*Solox D-I De-icing Fluid

***ANSOLS**
Ansol M
Ansol PR

ACETIC ESTERS
Amyl Acetate
Butyl Acetate
Ethyl Acetate

OXALIC ESTERS
Butyl Oxalate
Ethyl Oxalate

PHTHALIC ESTERS
Amyl Phthalate
Butyl Phthalate
Ethyl Phthalate

OTHER ESTERS
*Diatol
Ethyl Carbonate
Ethyl Chloroformate
Ethyl Formate

INTERMEDIATES
Acetoacetanilide
Acetoacet-ortho-anisidide
Acetoacet-ortho-chloranilide
Acetoacet-ortho-toluidide
Acetoacet-para-chloranilide
Ethyl Acetoacetate
Ethyl Benzoylacetate
Ethyl Sodium Oxalacetate

ETHERS
Ethyl Ether
Ethyl Ether Absolute—A.C.S.

OTHER PRODUCTS
Acetone
Collodions
*Curbay B-G
*Curbay Binders
*Curbay X (Powder)
Ethylene
Ethylene Glycol
Nitrocellulose Solutions
Potash, Agricultural
Urethan
*Vacatone

*Registered Trade Mark

chairman of the group, arranged the party and conducted the drawing for the bonds. He was assisted by Harry Griffiths of the Pennsylvania Drug Co. In addition to defense bonds sold through chances, the BIMS gave away to those who attended five twenty-five dollar bonds.

Among the winners of defense bonds were Fred Lueders of George Lueders, Sewell Corkran of Wirz, Gregory Thomas of Bourjois, A. F. Anderson of Naugatuck Aromatics, Al Egerter of Plaskon, Charles W. Darr of Harriett Hubbard Ayer, Dudley Shaw of Allen B. Wrisley, R. C. Payton of Yardley, Clifford Marsh of Menley & James, and F. A. Nicholson of Richardson, Taylor & Globe.

Chairman Schultes also announced the program for four golf tournaments to be held by the BIMS of New York next spring and summer, the first being scheduled at the Baltusrol Country Club, Summit, N. J., on Tuesday, May 12. The other three will follow during June, July and September, the final golf party to be held at the Ridgewood Country Club, Ridgewood, N. J. about the middle of September.

F.W.D.A. Meeting

The Federal Wholesale Druggists' Association held its mid-year meeting at the Hotel Pennsylvania, New York, February 2, 3 and 4. The first day the morning session was devoted to "American Business and the War Economy" and the afternoon session was devoted to "The Drug Industry in a World War." The outlook on supplies of certain raw materials was discussed as follows: Alcohol—L. A. Keane, vice-president, U. S. Industrial Alcohol Co.; Botanicals—S. B. Penick, Sr., president, S. B. Penick & Co.; Containers—Packaging Problems, J. S. Norton, vice-president, Lambert Pharmacal Co., Tin Reclamation, Lee Bristol, vice-president, Bristol Myers, Inc., The Future of Collapsible Tube Items, Malcolm Hart, sales manager, Pepsodent Co., Glass Containers, C. J. Kiger, manager, prescription ware department, Owens-Illinois Glass Co.; Essential Oils—V. H. Fischer, president, Essential Oil Association; Medicinal Chemicals—H. J. Dietel, sales department, Merck & Co.; Rubber, Ernest I. Kildup, president, Davol Rubber Co.

Among the speakers on consumer goods were: R. A. Whidden, president, Bauer & Black—Government Requirements and Civilian Needs; M. P. Morris, wholesale division, E. R. Squibb & Sons—Biologicals and Pharmaceuticals—S. L. Mayham, director of board of standards, Toilet Goods Association—Cosmetics; Arthur Hill, vice-president, Johnson & Johnson—First Aid Needs; and F. S. Dietrich, vice-president, the Mennen Co.— Toilet Goods.

Active membership meetings were held February 3 and 4 and there was a group banquet February 3.

A.P.M.A. Meetings Planned

Bordner F. Ascher, president of American Pharmaceutical Manufacturers' Association, has announced production and sales forums being held by members during February. The western meeting of the production committee will be held at the Palmer House, Chicago, February 27, under the chairmanship of Dr. W. B. Baker, Sutliff & Case Co., Inc. The eastern meeting of the production committee will be held at the Commodore Hotel, New York, February 21, under the chairmanship of W. O. Brewer, Calco Chemical Division, American Cyanamid Co.

Non-members wishing to attend the meetings can obtain invitations from the secretary, S. B. Penick, Jr., of S. B. Penick & Co., New York.

The eastern meeting of the sales and advertising committee was held at the Hotel Pennsylvania, New York on February 7, under the direction of G. F. Rorer, William H. Rorer, Inc., and the western meeting was held at the Palmer House, Chicago, February 14, under the chairmanship of R. M. Tate, Blue Line Chemical Co.

Foragers Honor Betz

The Foragers held their forty-fourth annual banquet at the Midston House, New York, January 10. The guest of honor was Oscar Hay Betz, one of the organization's oldest active members and one who has served as vice-president and as member of the board of directors on many occasions during his long membership. Although he retired from active business several years ago he was well known through his connection with S. E. Howard & Sons, brush manufacturers, where he was vice-president and general manager.

Frank L. Graham acted as toastmaster, and H. T. Georgi, who is this year serving his fourth consecutive term as president, paid tribute to Mr. Betz and presented him with a gift on behalf of the Foragers.

Chemical Defense Bonds Effort

The chemical industry is being organized for the Pay Roll Allotment Plan of Defense Savings Bond Campaign under the chairmanship of P. M. Dinkins of American Cyanamid & Chemical Corp. The committee for the chemical industry consists of J. J. Butler, West Virginia Pulp & Paper Co.; Earl Demmon, Stauffer Chemical Co.; Fred Koch, Dow Chemical Co.; C. L. Gabriel, Commercial Solvents Corp.; W. I. Galliher, Pittsburgh Plate Glass Co.; Lester Gordon, Solvay Sales Co.; George Handel, Cincinnati Chemical Works; Glenn Haskell, U. S. Industrial Chemicals Inc.; J. H. Karrh, Victor Chemical Works; R. J. Quinn, Mathieson Alkali Works, Inc.; J. P. Remembsnyder, Heyden Chemical Co.; Ira Vandewater, R. W. Greeff & Co., Inc.; W. J. Weed, Niagara Alkali Co., and V. E. Williams, Monsanto Chemical Co.

A meeting of the committee was held at the Rockefeller Center LuncheonClub January 15 at which the plans for the campaign were outlined and 184 companies were assigned to each committee member for solicitation. The work of the committee is to obtain the cooperation of all these companies in adopting the Pay Roll Allotment Plan and the cooperation of each employee in pledging a portion of his income for the regular purchase of Defense Savings Bonds.

Set-Up Box Group

Manufacturers in the Set-Up Paper Box Industry have formed a group known as the "Master Craftsmen" for the purpose of exploiting the advantages and functions of set-up boxes. The movement is sponsored by the National Paper Box Manufacturers Association as well as other suppliers.

Anderson Again Heads Phila. Ex.

The Philadelphia Drug Exchange held its annual meeting January 27 at which the following officers were elected: R. G. Anderson, Merck & Co., president; Charles E. Vanderkleed, McNeil Laboratories, Inc., vice-president; J. Mervin Rosenberger, Smith, Kline & French, Inc., secretary; and Harold C. Halberstadt, Shoemaker & Busch, Inc., treasurer.

Elected to the board of directors were: George F. Applin, E. L. Brendlinger, R. A. Cain, Walter P. Miller, Jr., E. S.

Synfleur

REG. U. S. PAT. OFF.

Over Fifty Years of Satisfaction

LAVENTHIA - U (USP Type)

(Synthetic Oil of Lavender)

Whether it is to be used as an adjunct to a formula or by itself—wherever the USP Lavender is employed—Laventhia-U will serve every purpose — and most satisfactorily too. Let us submit a sample. It is adapted for all perfumery purposes and just the item you are looking for. It means a saving and superior service.

Trial Pounds $7.50
50 Pound Lots 6.75

MADE IN U. S. A.

Now, as in the last World War, Synfleur will supply those perfume materials you cannot obtain from your regular sources. Write us now.

SYNFLEUR SCIENTIFIC LABORATORIES, INC.
MONTICELLO, NEW YORK, U. S. A.

Atlanta Detroit Chicago Mexico, D. F.
Buenos Aires Lima Havana Santiago Rio de Janeiro Guayaquil

Paisley, Frank F. Law, Bruce Ludgate, E. F. Schafer and John C. Walter.

The exchange held its annual banquet at the Bellevue-Stratford Hotel, January 29.

Chicago Assn. Elects

New officers have been elected for this year by the Chicago Perfumery, Soap & Extract Association. Wm. H. Schutte, P. R. Dreyer Inc. is president, Dr. J. B. Montenier, Jules Montenier & Co., is vice-president and C. A. Hammond, F. N. Burt Co., is secretary-treasurer.

Mr. Schutte has appointed the following committee chairmen: membership, Walter H. Jelly; entertainment, Herbert Rothschild; legislative, Howard Lyon; publicity and welfare, Donald M. Clark; golf, R. L. Holland; finance, Ralph C. Jennings; and bowling, Martin Vance.

Industry Gives to Fund

The drug, pharmaceutical and proprietary medicine industry gave $21,723 to the Greater New York Fund in its 1941 campaign. This report has been made to James A. Farley, 1941 campaign chairman, by R. D. Keim, vice-president, E. R. Squibb & Sons, chairman of the section, and Turner F. Currens, vice-chairman. The total represented an increase of 25 per cent. over contributions from the same section in 1940.

Financial

Lehn & Fink Earn More

Lehn & Fink Products Corp. reports for the six months to December 31 a net profit of $348,387, equal to 87 cents each on 400,000 shares of common stock. This compares with a profit of $312,873, or 78 cents a share for the six months ended December 31, 1940. The report states that the company is not considered liable for any excess profits taxes.

Noxzema Sales Up Sharply

Noxzema Chemical Co. reports for 1941 a net income of $233,096, equal to 59 cents each on 393,076 shares of combined Class B and common stock. This compares with a net profit of $225,851, or 56 cents each on 400,000 shares in 1940. Net sales were $2,201,008 against $1,607,458.

Rubinstein Earnings Up

Helena Rubinstein, Inc. reports for the year ended September 30, 1941 a net income of $823,259, equivalent to $4.59 a share on 157,658 common shares. For the nine months ended September 30, 1940, the net income was $434,575, or $2.28 a common share.

Obituaries

Naomi Aran

Naomi Aran, assistant to Fernand Robin, export manager of Magnus, Mabee & Reynard, Inc., died January 12 two days after returning from a vacation spent with her family at her home in Puerto Rico. She was taken ill aboard ship en route to New York and died two days after the ship docked.

Milton S. Butler

Milton S. Butler, secretary and director of Ungerer & Co., died January 26. He was fifty-two years old. Mr. Butler had been with Ungerer & Co. for many years having joined the company after serving in the Navy during the first World War.

S. J. Carlin

S. J. Carlin, formerly with Lehn & Fink for more than twenty-five years, died at his home in Minneapolis, December 28. He had retired from active business ten years ago.

James J. Cummings

James J. Cummings, a sales representative of Fritzsche Brothers Inc. for nearly twenty-three years, died January 8 at his home in Woodside, Long Island. He was forty-eight years old. Mr. Cummings served during the first World War as a lieutenant in the Tank Corps. He is survived by his wife, a daughter and two sisters.

William Preston Fitzgerald

William Preston Fitzgerald, vice-president of the J. T. Baker Chemical Co., died January 20 at his home in Easton. He was 63 years old.

A native of Huntington Mills, Luzerne County, and a graduate of Lafayette College in the class of 1902 he had been interested in chemistry all his life. His connection with the Baker Chemical Co. in New Jersey dates back to its organization in 1904.

Mr. Fitzgerald's understanding and tireless efforts contributed largely to the present day status of Baker Analyzed CP Chemicals. His methods of purification on a production basis were derived with so much foresight that many of these methods still in the original state are in use today. He became chief chemist in 1905, becoming a member of the board of directors in 1907, was appointed secretary in 1923 and in 1926 became a vice-president. He was for many years a member of the American Chemical Society.

Thomas J. Glenn

Thomas J. Glenn, office manager of the Murine Co., Chicago, died January 7. He would have been sixty in March.

Mr. Glenn had been with the Murine Co. for seven years and had been active in the industry since 1916. From 1916 to 1923 he was with Foley Medicine Co.; and was later associated with Sterling Products in Windsor, Ontario, and Montreal; was general manager of Foley & Co., Chicago, until 1929, and was with W. R. Rawleigh Co., Freeport, Ill. before joining Murine.

Frederick W. W. Graham

Frederick W. W. Graham, who retired from Smith, Kline & French Co., Philadelphia, in 1926, died January 17 at his home in Chestnut Hill. He was seventy-five years old. He was associated with Smith, Kline & French for about forty years.

Hoyt R. Shehan

Hoyt R. Shehan, vice-president and general manager of the Wildroot Co., Inc., Buffalo, died suddenly January 9. He was sixty-one years old.

In 1909 Mr. Shehan joined Robert J. Kideney and Morrel C. Howe, Buffalo barbers who had compounded the first Wildroot tonic two years previously. For the past thirty years Mr. Shehan supervised sales and advertising.

Harry B. Thompson

Harry B. Thompson, former counsel for the Proprietary Association, died after an extended illness January 8 at the Emergency Hospital, Washington.

Mrs. William J. Wardall

Mary Burry Wardall, wife of William J. Wardall who was trustee for McKesson & Robbins, Inc. during its reorganization, died January 16. She was fifty-three years of age.

★ ★ ★ ★ ★ ★ ★ ★ ★

"It gives me pleasure to advise you that your organization has been chosen to receive the flag of the Bureau of Ordnance and the Navy 'E' pennant in recognition of your outstanding efforts in the production of ordnance materiel vital to our national defense. Recent events have made this award of even deeper significance than any which have been made in the past."

Secretary of the Navy Frank Knox, in a letter to Monsanto.

"E" stands for teamwork!

Among the crews of Uncle Sam's warships and naval planes, the Navy "E" is one of the most coveted and respected honors the men of a single gun turret or an entire battleship can win.

It is a symbol, not of individual brilliance, but of championship teamwork . . . teamwork that only long, gruelling hours of actual practice could perfect.

The same tradition governs the award of a Navy "E" to an industrial plant.

The "outstanding jobs" which win an Ordnance Bureau flag and "E" pennant are not the work of one brilliant "lone wolf" in the research department—or a single, capable executive. They are the result of teamwork that only starts with the quarterback in the front office and includes every man in the organization to the policeman on the plant gate . . . teamwork that only long years in the peacetime service of industry could perfect to the peak of efficiency demanded by a nation at war!

Monsanto is proud to fly the Navy "E" in recognition of past performance . . . glad to accept the responsibility it imposes for future performance. MONSANTO CHEMICAL COMPANY, ST. LOUIS, MISSOURI.

MONSANTO CHEMICALS

SERVING INDUSTRY . . . WHICH SERVES MANKIND

F.T.C. ACTIVITIES

Orders

Sterling Capsules

Nature's Herb Co., San Francisco, has been ordered to cease misrepresentations of "Sterling Capsules," advertised as a cure or remedy for arthritis, rheumatism, sciatica, and similar ailments.

The order directs the respondent to cease advertisements which represent that the preparation constitutes such a cure or has therapeutic value in excess of a mild analgesic which may afford temporary relief from pain associated with such diseases or conditions, and in excess of a laxative or cathartic which will temporarily evacuate the bowels.

The order also prohibits advertisements which fail to reveal that the preparation may be injurious unless its dosage is limited to a period of two or three days; and that it should not be used by persons suffering from nausea, vomiting, abdominal pains, or other appendicitis symptoms; provided, however, that if the directions contain warnings of the potential dangers, the advertisement need contain only the cautionary statement: "Caution, use only as directed."

Old Surgeon's Products

Hiram Carter, Inc., Elmhurst, N. Y., and S. Fred Griffin, president and principal owner of the corporation, have been ordered to cease misrepresentations of "Old Surgeon's," or "Old Surgeon's Remedy" or "Old Surgeon's Double Duty Remedy."

The respondents are directed to discontinue advertisements which represent that "Old Surgeon's" preparations constitute a cure or remedy, or a competent or effective treatment, for impotence, lost energy, indigestion, asthenia or neurasthenia, or will prevent premature old age or restore or beneficially affect the functioning of exhausted glands, nerves or organs; that the preparations constitute a cure or remedy for rheumatism, neuritis, polyneuritis or arthritis, or have any therapeutic value in the treatment of such conditions in excess of affording temporary partial relief from the symptoms of pain; or that they have any therapeutic value in excess of that afforded by a laxative or analgesic in the treatment of any other diseases or conditions, except in cases of anemia due to iron deficiency or in certain conditions resulting from a deficiency of thiamin chloride, riboflavin or nicotinic acid, where such deficiency is adequately supplied by the preparations.

The Commission finds that the price of "Old Surgeon's" is not $5.00, as represented by the respondents, but is approximately $1.94, and that the latter price is neither special nor reduced but is the price at which such preparations are customarily offered for sale in the regular course of business. The Commission also finds that illustrations on the respondents' letterheads and other stationery depict a large two or three story building as their place of business when, in fact, they occupy two office rooms and a loft on the second floor of a building.

Under the order, the respondents are required to cease representing that the usual prices at which they sell their preparations are special or reduced or less than the prices at which such preparations are customarily offered for sale in the regular course of business, and to discontinue representing, pictorially or otherwise, that the physical plant, equipment and facilities owned or used by them are greater than is the fact.

Davis' Formula No. 7895

E. R. Davis, trading as E. R. Davis Prescription Co., Bellingham, Wash., has been ordered to cease false advertisements of "Davis' Formula No. 7895," offered as a cure or remedy for asthma and hay fever.

The respondent is ordered to discontinue advertisements which represent that his preparation is a cure or remedy for asthma or has any therapeutic value in the treatment thereof, in excess of furnishing temporary relief from the paroxyms of asthma; that it is a cure or remedy for hay fever or has any substantial therapeutic value in the treatment of such disorder, or that its use will prevent attacks of asthma or hay fever or prevent their recurrence.

Sure Laboratories

Fannie P. Fox, trading as Sure Laboratories, Chicago, has been ordered to cease representing that "Sure" is a neutralizing agent or breath purifier; that the earnings or profits of any agent or distributor for any given period is any specified sum of money which has not, in fact, been consistently earned by such agent or distributor in the ordinary course of business under normal conditions; and that any specified sum of money greatly in excess of the average earnings of other agents or distributors of the respondent has been earned by any specified representative, unless such representation is immediately accompanied by a statement to the effect that such earnings are exceptional and unusual.

Stipulations

Goody's Headache Powders

Goody's, Inc., Winston-Salem, N. C., manufacturer of "Goody's Headache Powders," agrees to cease advertisements which fail to reveal conspicuously that its headache powders should not be used in excess of the dosage recommended; that frequent or long-continued use may be dangerous, causing dependence on a drug, or causing skin eruptions or mental derangement; that use of the preparation may cause collapse; and that the powders should not be taken by nor administered to children; provided, however, that the advertisement need contain only the statement: "Caution: Use only as directed," if and when the directions appearing on the label or in the labeling contain a warning to the same effect. The respondent further agrees to desist from advertising that use of the preparation will remove the cause of symptoms indicated by headache, neuralgia, muscular aches and pains, or has value other than as a temporary alleviating agent.

Baum's Foot Salve

Joseph H. Baum trading as Baum Laboratories, Brooklyn, agrees to discontinue representing that "Baum's Ace Brand Corn, Callous and Bunion Salve" is a competent treatment, an effective remedy or a cure for corns, callouses, warts, bunions or ingrown toenails; that it is harmless or entirely safe under con-

DOLLARS *and* SENSE

Can you measure this lady's happiness in dollars and cents? Is she thinking of the price she paid for the face powder with which she achieved her matchless complexion — and her adoring admirer?

MR. MANUFACTURER:

Does this picture bring home to you the reason why women will pay more for a face powder that will superlatively enhance their personal charm?

We Believe

FACE POWDER BASE Z NEW

Will do this.

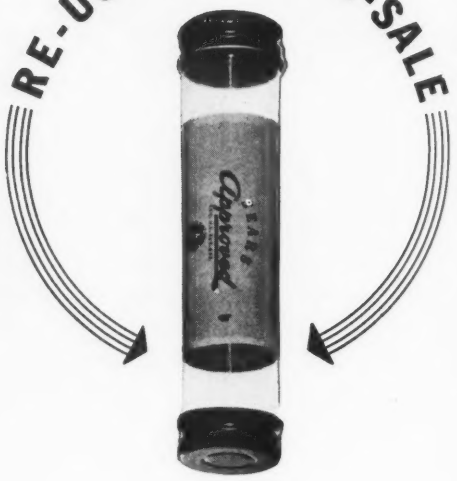
Aromatics Division

GENERAL DRUG COMPANY

9 S. Clinton St., Chicago — 1019 Elliott St., W., Windsor, Ont.

LUSTEROID

RE-USE means RE-SALE



THE many re-use possibilities of Lusteroid rigid cellulose vials and tubes give these packages an added "life" with consumers that means increased re-sale for products packaged in them. The original label is processed integrally with each Lusteroid package and lasts as long as the container itself. Every time the consumer sees the package—and each Lusteroid container lends itself to constant use in handbag, pocket, shelf or hand—he will be reminded of the identity of the original product.

Lusteroid packages have many other advantages, among which are: exceedingly light weight, unbreakability, good dimensional stability, resistance to metals, unlimited *integral* color possibilities, and many other fine qualities.

A note or phone call will bring an answer to your packaging problem.

LUSTEROID CONTAINER CO.

INCORPORATED

Formerly Lusteroid Division of the Sillcocks-Miller Company

12 Parker Avenue, West • South Orange, New Jersey

ditions of continued or repeated use; that it is either "new" or a scientific remedy" for disfigured feet due to corns and bunions or that the results to be obtained from its use are guaranteed, unless, whenever the word "guaranteed" is used, clear and unequivocal disclosure is made as to what is offered by way of security. The respondent also agrees to stop disparaging competing products and to discontinue use of the word "Laboratories" as a part of his trade name.

Orangeine Claims

F. A. Hughes Co., Inc., Rochester, N. Y., advertising agency, agrees to cease certain representations concerning "Orangeine," offered for the relief of simple pains and aches, headaches and neuralgia, by Kemp & Lane, Incorporated, LeRoy, N. Y. The agency agrees to cease advertisements which fail to reveal that the preparation should not be used in excess of the dosage recommended; that its frequent or continued use may be dangerous, causing collapse or a dependence on the drug acetanilid contained therein; and that it should neither be taken by nor administered to children; provided, however, that the advertisements need only contain the statement, "Caution, use only as directed," if and when the directions, appearing on the label and in the labeling, contain a caution or warning to the same effect.

Goat Milk Cosmetics

Marion E. Baldwin, trading as Hillshire Down, Killingly, Conn., agrees to cease representations of "Hillshire Down Goat Milk Hand and Arm Cream," "Hillshire Down Goat Milk Massage and Cleansing Cream," and "Hillshire Down Lotion."

The respondent agrees to cease representing, that her cosmetics will enable the body to breathe through the skin, have any effect in purifying the blood, or reach deeply into the pores and bring out impurities, or that any of the preparations is a tonic for the skin or nerves or will tighten the facial muscles, feed the skin, nourish the skin tissue, aid in producing healthy skin, be non-allergic to all persons, or produce complete, clear or new skin tissue; and that the nutritional value of three quarts of goat's milk is equivalent to that of eight quarts of ordinary milk.

Respondent will cease employing the word "tissue" or its abbreviation as part of a brand name, or as indicating that any of her preparations will affect the tissue of the skin other than to clean the surface of the outer skin tissues. According to the stipulation, the respondent formerly sold a cosmetic designated "Hillshire Down Goat Milk Tissue and Foundation Cream" and now sells it under the designation "Hillshire Down Goat Milk Night and Foundation Cream."

Pennex Products

Pennex Products Co., Inc., Pittsburgh, manufacturer of pharmaceuticals, flavoring extracts and toiletries, agrees to cease representing that purchasers do not pay freight on Pennex merchandise or that merchandise bought for a price which actually includes an undisclosed charge for freight is received by the purchaser without cost of freight. The respondent further agrees to cease representing that Pennex merchandise always exceeds rigid Government regulations in its purity and quality; that mineral oil and milk of magnesia which it sells surpasses the United States Pharmacopeia requirements; that its imitation vanilla flavoring is 33-1-3 per cent. stronger than purported "Federal requirements"; and that absorbent cotton or bandages sold by it will remain sterile after removal from the container.

Father John's Medicine

Father John's Medicine Co., Inc., Lowell, Mass., formerly known as Carleton & Hovey Co., agrees to cease representing "Father John's Medicine" as a remedy or effective treatment for colds or bronchial or throat irritations; as being rich in vitamins other than vitamins A and D and as being capable of increasing one's appetite. The respondent also agrees to cease advertising that its preparation will build resistance to bronchial or throat irritations or have any value in the preventive treatment thereof except to supply vitamin A in those instances where the resistance of the body is low due to an insufficient supply of such vitamin in the daily diet.

Conti Complexion Cream

Conti Products Corp., Brooklyn, agrees to discontinue representing that "Conti Complexion Cream" is effective in preventing or correcting skin dryness, in helping maintain the proper moisture balance of the skin, or in conditioning the facial muscles, or that it will have a beneficial effect upon so-called "worry lines." The respondent also agrees to cease representing, through use of the word "tissue" in describing the preparation, that it builds up, nourishes or otherwise beneficially affects the tissues of the skin.

Bolk Laxative

Cal-Par Corporation, New York, agrees to discontinue representing that its "Bolk" acts as an intestinal tonic, relieves constipation in a natural manner, or is safe to use in cases of colitis or constipation; that the preparation will always be of benefit where symptoms of headache, nausea, dimmed eyesight, or weakness are present; and that it will prevent toxins from breaking down the intestinal walls and entering the blood stream or will prevent degenerative changes in nerves, glands or organs, or is a safeguard against obesity.

The respondent also agrees to cease using any advertisement which fails to reveal that "Bolk" should not be used when abdominal pain, nausea, stomach sickness or other symptoms of appendicitis are present, provided, however, that such advertisement need contain only the statement "Caution Use Only as Directed," if and when the directions wherever they appear on the labels contain a caution or warning to the same effect.

Complaint

Diabetes Product

Di-Function Co., Inc., Fort Worth, Tex., is charged false advertisement of "Di-Function," for diabetes.

According to the complaint, the respondent advertised in periodical and radio matter that its product is an effective treatment which will cure sugar diabetes; that its use will revive the glands of the pancreas so that they will produce sufficient insulin for the body's needs; and that it will cure long-standing, severe cases of sugar diabetes and make possible the resumption of regular diet, the discontinuance of all medicines, and the enjoyment of a normally well and healthy life.

The complaint alleges that the respondent's preparation will not accomplish the results claimed; that it is of no therapeutic value in the treatment of any disease; and that the respondent's advertisements are false in that they fail to reveal that there is only one diabetic treatment which is accepted by the medical profession as competent for treating sugar diabetes. That treatment, according to the complaint, consists of a regulated diet, or a regulated diet and the supervised administration of insulin.

EXCLUSIVE WITH HOPKINS

HOPKINS' FACTOLAC

For permanent emulsions of both fixed and volatile oils. Insures complete, homogeneous mixture without trituration or special apparatus. An ideal, trouble-saving, money-saving emulsifier.

HOPKINS' PINEALCO

To make a dependable Syrup of White Pine Compound, N. F., standardize on Hopkins' Pinealco. Therapeutically reliable, uniform in color, odor and flavor. So highly concentrated, a single pound of Pinealco will yield about 20 pints of Syrup.

BASIC INGREDIENTS

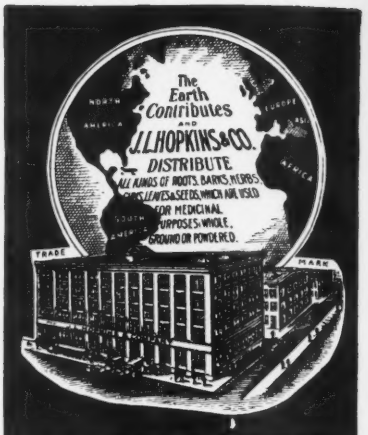
FOR TOILETRIES • COSMETICS • PROPRIETARIES

HOPKINS' NEUTRAL POWDERED WHITE SOAP

Assures snow-whiteness, neutral taste, absence of free alkali, low moisture content and very low residue of alcohol, water and sodium carbonate. Completely dependable uniformity and performance.

HOPKINS' FIJIOLINE

A pure, natural Vegetable compound —semi-liquid, mucilaginous, free of objectionable over-adhesiveness. An economical substitute for such bases as Quince Seed, Gum Tragacanth, Irish Moss and Flaxseed for lotions, wave-sets, etc.

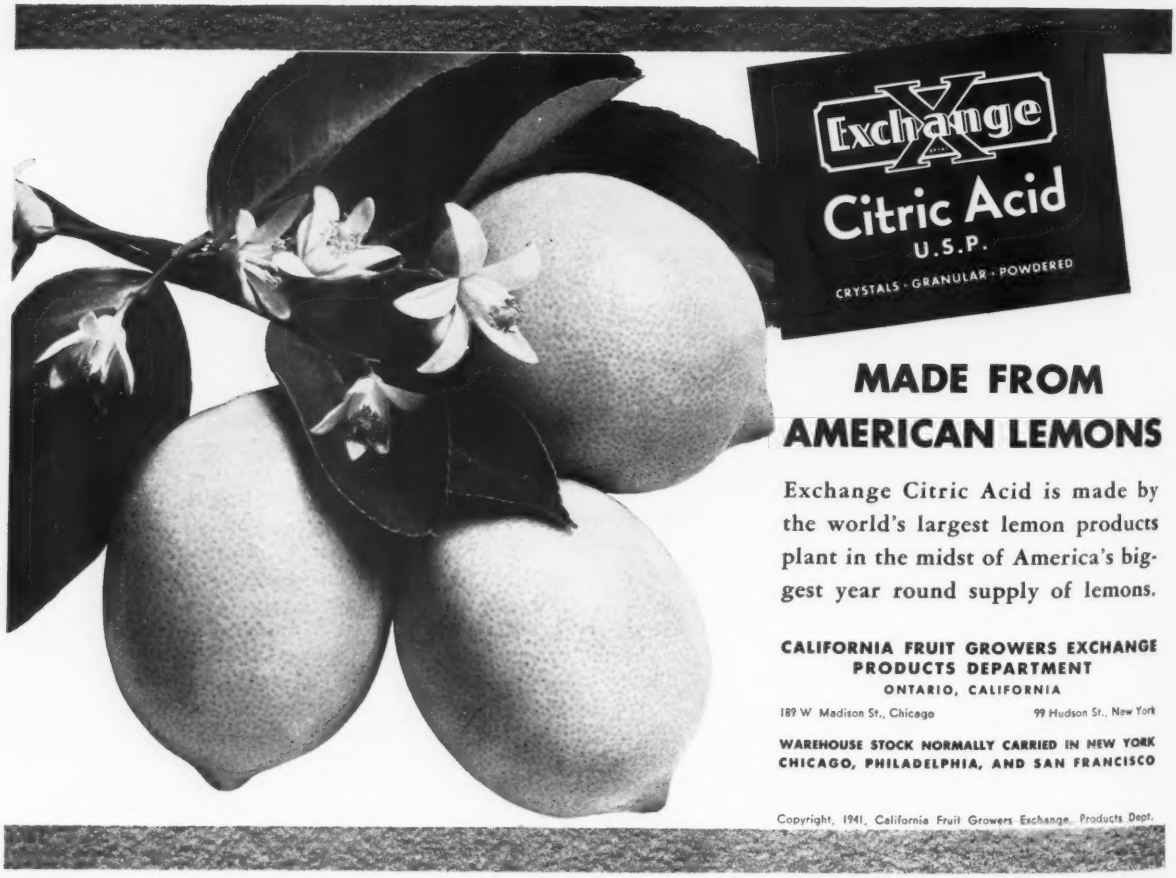


"Quality is remembered long after price is forgotten".

FREE UPON REQUEST

Samples and quotations for any of these Hopkins' Specialties, upon request. We invite correspondence on any problems to which our technical staff can bring its expert cooperation.

J.L.HOPKINS & COMPANY 220 Broadway NEW YORK



MADE FROM AMERICAN LEMONS

Exchange Citric Acid is made by the world's largest lemon products plant in the midst of America's biggest year round supply of lemons.

CALIFORNIA FRUIT GROWERS EXCHANGE
PRODUCTS DEPARTMENT
ONTARIO, CALIFORNIA

189 W. Madison St., Chicago — 99 Hudson St., New York

WAREHOUSE STOCK NORMALLY CARRIED IN NEW YORK CHICAGO, PHILADELPHIA, AND SAN FRANCISCO

Copyright, 1941, California Fruit Growers Exchange, Products Dept.

INDUSTRY'S BOOKS

Sinus, by Russell Clark Grove, M.D., 165 pp., Alfred A. Knopf, New York, Cloth, $2.00.

Dr. Grove briefly and clearly explains the structure, position, and function of the sinuses, and describes the many symptoms of their disease in its acute and chronic forms, its pus and non-pus-forming types—including a discussion of the importance of allergy in this regard. He then gives the details of the various medical and surgical treatments that are in use—those involving vitamins, those based on sulfanilamide and its derivatives, and all the others—together with the very different effects these may have on different patients. Beyond that he warns emphatically against several common forms of self-treatment, explaining why these may occasionally have good effects, more often none at all, and sometimes definitely harmful results.

Chromatographic Adsorption Analysis, by Harold H. Strain, Ph.D., 222 pp., Illus., Interscience Publishers, Inc., New York, Cloth, $3.75.

In the past ten years, extensive use has been made of a unique columnar adsorption method for the detection, isolation and purification of numerous compounds not preparable by other methods. Substances so similar in chemical structure and reaction that they are inseparable by the most selective methods have been prepared quickly, efficiently and conveniently by means of this new technique. Known as chromatographic adsorption because of its original use with pigments, this adsorption procedure has added greatly to the knowledge of chemical compounds. This work is a summary of available knowledge regarding chromatographic adsorption analysis. Major emphasis has been placed upon experimental procedure, although the most important interest concerns application of the method to new problems, to the detection and preparation of new compounds. These applications depend, to a large extent, upon knowledge of the previous investigations, particularly upon those in related fields. As a consequence, reference has been made to most of the published investigations. Contents: Historical Introduction; Applications of Chromatographic Adsorption Methods; Apparatus and Procedure; Adsorbents; Solvents and Eluants; Location of Colorless Adsorbed Substances; Chromatography of Inorganic Compounds; Chromatography of Organic Compounds; Industrial Uses; Bibliography—Author Index—Subject Index.

American Highway Policy, by Charles L. Dearing, 286 pp., Brookings Institution, Washington, Cloth, $3.

The present century has witnessed a rapid and effective modernization of the American public road system, paralleled by universal motorization of highway use. These developments have given rise to sharp conflicts of interest among the various classes of highway users, groups of taxpayers, and competing forms of transportation. All efforts to resolve these controversies have proved inconclusive, primarily because of the wide difference of opinion that persists with respect to the basic purposes served by public roads; the precise nature of the benefits created by road use; and the manner in which these benefits are distributed among the various groups of society. The purpose of this study is to clarify the main issues involved in the public management and private use of the public road system and to formulate a set of principles which may serve as the basis for distributing authority and responsibility among levels of government and the financial burden among tax-paying groups.

The March of Medicine, 154 pp., Columbia University Press, New York, Cloth, $2.

This is a series of essays originated as lectures to the laity at the New York Academy of Medicine. Their purpose is twofold, first to show historically how medicine has developed, and second to reveal its social and cultural significance. The lectures in this 1941 edition of The March Of Medicine range the whole history of the subject. At one end are discussions of the relation of humanism to science, and of philosophy as therapy. And, looking toward the future, are papers on cancer and the endocrine glands. This work presupposes neither special knowledge of medicine nor familiarity with scientific vocabularies. The charm of these lectures and of the book into which they have been gathered, is that they are free of the tedium of systematic treatises and full of the humor and definition of direct and personal converse. Contents: Humanism and Science, The Linsly R. Williams Memorial Lecture; Paracelsus in the Light of Four Hundred Years; Psychiatry and the Normal Life; Philosophy as Therapy; The Promise of Endocrinology; What We Do Know About Cancer.

The Principles and Practice of Beauty Culture, by Florence E. Wall, 708 pp., Illus., Keystone Publications, New York, Cloth $6.

This work is a complete summary of what actually makes up the combined art-and-science of beauty culture. The book is in four main divisions: I, The Scientific Foundations of Beauty Culture; II, The Applied Science and Art of Hair Treatments; III, The Applied Science and Art of Skin Treatments; IV, Business Practice in Beauty Culture. It comprises twenty chapters, including an excellent history of beauty culture, compiled largely from the

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author's own extensive library on the subject. Equally noteworthy is the material on the contribution to beauty culture of various sciences—physiology and hygiene, bacteriology and sanitation, anatomy, dermatology, physics, chemistry, physical therapy, and psychology. Succeeding chapters are devoted to care of the skin, hair, scalp, and nails; hairdressing, cutting, and waving; permanent waving; hair bleaching and dyeing; make-up for all occasions; electrolysis; shop management; and a fine chapter on advertising, selling, and promotion. Of special interest to manufacturers and merchandisers of cosmetics are the chapters on the skin, on treatments which show how various preparations are to be used in practice, and on pointers for selling and promotion.

Essentials of Prescription Writing, by Cary Eggleston, M.D., Seventh Ed., 155 pp., Pocket Size, $1.50.

This small volume is intended to provide a succinct, yet sufficient, treatment of the subject of prescription writing. Contents: Latin Grammar; Grammatic Construction of Prescriptions; Weights and Measures; Practical Writing of Prescriptions; Doses of Drugs; Vehicles; Incompatibility; Modes of Administration of Medical Agents; Suggestions for Prescribing Official Preparations; Practice Prescriptions.

Handbook of Chemistry and Physcis, Ed. by Charles D. Hodgman, M.S., and Harry N. Holmes, Ph.D., 25th Ed., 1941-42, 2521 pp., Chemical Rubber Publishing Co., Cleveland, $3.50.

There are five general divisions of subject matter in the Handbook of Chemistry and Physics as follows: Division I—This division consists of mathematical tables and occupies 272 pages. The list is very comprehensive and satisfies the requirements of all the usual courses of pure and applied mathematics, and also the needs of engineers and others engaged in industry. Division II—The major portion of data in this division, under the general heading properties and physical constants, has undergone recent complete revision, especially description of elements, isotopes and the tables of physical constants of inorganic, metal-organic and organic compounds. The new tables on melting point index and boiling point index or organic compounds are of special importance. Division III—General chemical tables, and specific gravity and properties of matter are the two general sections of tables in this division. The data included are essential in connection with the work of every chemist. Extensive revision has been made of the important tables on gravimetric factors, and composition and value of foods. Division IV—In this division is included information on heat and hygrometry, sound, electricity and magnetism, and light. To every physicist and physical chemist this section is of great value. Division V—This division includes quantities and units, conversion tables and miscellaneous tables that are needed daily by scientists generally. Sections which have been completely revised and enlarged include those on amino acids, natural secants and cosecants, additional conversion tables, symbols and abbreviations.

The Human Nervous System, by Dwight M. Palmer, B. Sc., M.Sc., M.D., 344 pp., Illus., H. L. Hedrick, Columbus, Ohio, Cloth, $3.

The objectives that are sought in this volume may be outlined as follows: 1—To present only the human aspects of the nervous system; 2—To omit some of the details of neuro-anatomy and in their stead to place emphasis on some fundamental concepts of the dynamics of human biology and medicine; 3—To stress a psychosomatic approach to medicine; 4—To stress the fact that there is only one nervous system and that it is the arbitrary "divisions" of this one system that constitute the so-called "vegetative," "somatic" and "psychic" nervous systems; 5—To place added emphasis on the vegetative and psychic "divisions." The author is Assistant Professor of Anatomy and of Neuropsychiatry at The Ohio State University, College of Medicine.

Vitamins and Minerals for Everyone, by Alida Frances Pattee, 242 pp., Illus., G. P. Putnam's Sons, New York, Cloth, $2.

This book tells at a glance what vitamins and minerals are, what they can do for us, and where we can get them. It tells how much of each vitamin we need daily and how much calcium, phosphorus, and iron. It gives the daily dietary allowances of each vitamin and each mineral for both adult and child, adapted from the "Table of Recommended Dietary Allowances" set up by the Committee on Food and Nutrition of the National Research Council. It presents exclusive food tables from which the vitamin and mineral adequacy of a diet can be determined without any of the usual difficult calculations. These tables show how much of each vitamin and how much of each mineral may be obtained from average servings of many foods. Other tables show food in the order of their descending potency, from those containing most to those containing least. Vitamin concentrates are also discussed in case these are needed to build up our daily amount or to supply some known need.

Anhydrous Aluminum Chloride, by Charles Allen Thomas, 972 pages, Reinhold Publishing Corp., New York, $15.00.

This is No. 87 in the American Chemical Society Monograph Series. The author and his collaborators have attempted in this book to cover all work in the scientific, technical, and patent literature concerning the chemical use of aluminum chloride, and even a brief glance at the contents will show how thoroughly and carefully the work has been done. After a brief introduction and historical sketch of Friedel and Crafts, chapters are devoted to the physical properties of anhydrous aluminum chloride and the mechanism of reactions catalyzed by it. Discussion of Friedel-Crafts syntheses is covered in chapters devoted respectively to reactions of aromatic hydrocarbons with halogenated compounds (other than acyl halides); ketone syntheses; ring closure with evolution of hydrogen halide. Other chapters discuss addition reactions; aldehyde syntheses; aromatic halogenation; dehydrating condensations; dehydrogenation condensations and reductions; miscellaneous condensations; aromatic rearrangements and migrations; effect of anhydrous aluminum chloride on aromatic compounds; effect on aliphatic compounds; polymerization; aluminum chloride in the petroleum industry. Final chapters are concerned with the preparation, manufacture and purification of anhydrous aluminum chloride and notes on its application.

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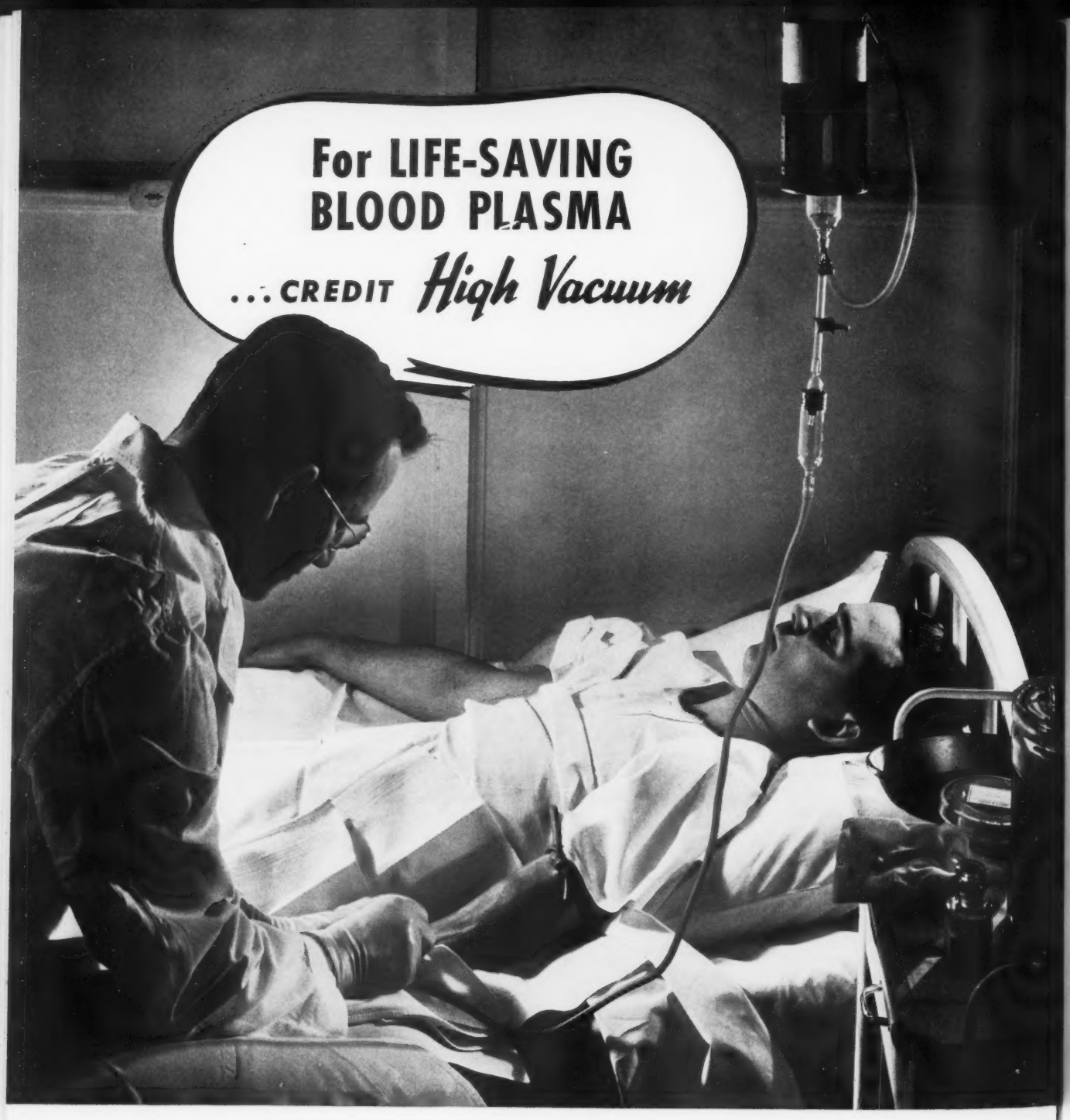

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PRODUCTION FORUM

By FRANCIS CHILSON
Production Engineer

EMPLOYEE COOPERATION

I have always been a believer in allowing employees to cooperate in the development of every job that concerns them and of asking their advice whenever problems arise in connection with their work. On some jobs it has been a little difficult to do this because foremen and straw bosses resent going directly to the workers for advice and information. But it is good practice, nevertheless, because it flatters the workers and makes them feel that they are as much a part of the job as you are.

In dealing with factory people, one should never, of course, talk down to them. In getting their cooperation, the whole problem and its difficulties must be explained to factory folks and some inducement given for a successful solution. Not long ago I had an illuminating experience in discussing a grinding problem with the head of a big plant. The problem concerned the best method of grinding materials which have a tendency to become gummy when they are heated by friction. I knew the answer, of course, from having run into it a number of times before and, in discussing the problem with the workmen on the job, I found that one of them also knew the answer because he had previously worked in a drug mill where a lot of the material was handled. When I asked him why he had not told his boss how to do the job, he said, "Well, he didn't ask me, and besides, it's not my job to tell him how to run his job." I think this typifies the attitude of a good many workers.

Many firms are beginning to realize that ordinary workmen know a great deal more than is apparent on the surface and in consequence are developing methods of encouraging the workers to find the answer to the problems with which they are concerned. Personally I do not think this should be done on a committee basis because committees are deadly things and, when they meet at regular intervals, nothing is accomplished excepting a lot of useless talk. But when a matter is handled in an informal way, the worker will think about the problem on his own time and very likely will discuss it with his associates without interference with his regular work. Whereas if you put him on a committee, the workman insists that the committee meet on company time and this interferes with his regular duties. Moreover, there is a certain formality about the atmosphere of a committee meeting which has a tendency to discourage initiative and to inhibit free expression of ideas. If a workman gets what he calls a "crazy" idea, he doesn't hesitate about discussing it with other workmen whom he understands and whom he knows intimately but because of fear of ridicule or natural shyness, he will sit mum in a committee and say nothing about the idea.

PRODUCTION EXPERTS

The defense program has brought a motley tribe of "production experts" to the fore. Before the War started, production men weren't given too much consideration in sales-minded industries. They were looked upon as necessary nuisances whose costs were invariably too high and who sometimes failed to produce the goods twenty-four hours after a new item was introduced. Now all this has been changed. It suddenly turns out that all these sales managers, advertising men, political ward heelers, and newspaper columnists were, after all, production men at heart and perforce have by virtue of the national exigency become production experts. You can't pick up a newspaper without reading criticisms of production methods and suggestions as to how defense production might be increased by all manner of people who have access to the news-

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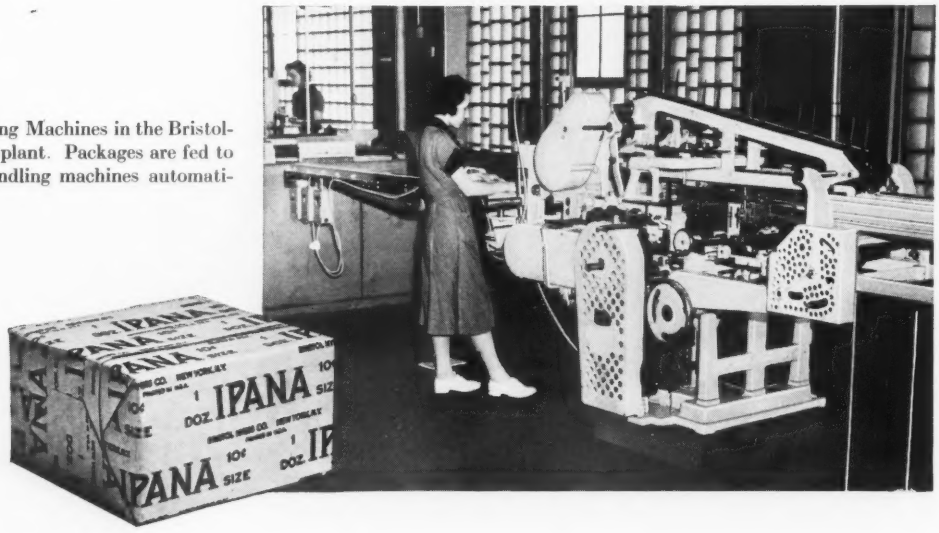

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papers. Not one of these people has ever been called upon to produce anything excepting words and wind, but they all know exactly how difficult items should be produced and how rapidly even though in many cases the factories for such items do not exist. In other words, we production men are, as so often happens in our own organizations, being called upon somehow to remedy the blunders of the non-producing departments. If the politicians and the rest of the talkers had done more thinking than talking, the national production effort would have been well organized and rolling like a Rolls Royce now.

There is unfortunately a tendency to call into the service of the government so-called "experts" in various industrial fields. Government officials and politicians, not being technically minded, make the drastic mistake of assuming that because a man holds an executive position in an important firm in any particular industry, he is necessarily a production expert in that particular industry. For instance, the president of a very large company with which I am familiar was called to Washington early in the defense program as an authority on his own industry. This man came up through the sales department of his firm and from long personal contact I can assure you that I never knew a man who knew less about production problems in general or about production problems in his own industry in particular than he does. There have been, unfortunately, too many such instances. But the signs and portends are pointing to a correction of this condition. In our own field Bill Bristol has been placed in an important post in Washington. Bill is not only a production official in his company, but he is a genuine production man from the ground up and is fully familiar with the manifold technicalities which all production men encounter. He has, therefore, an appreciation of the time elements involved in organization, construction, design, and execution.

I learned very recently that in the machine tool division of O.P.M. a change was made and a post similar to Bill Bristol's has been given to an official of one of the large machine tool companies who had served time as a machinist and who had risen to his present rank through the production department of his company. If this process continues—and it could be done almost overnight—we will get the production ball rolling so fast that we will smother the Japs and the Nazis in short order.

LECITHINATED SUGAR

A month or so ago we told you about a product put out by W. J. Fitzpatrick Co. of Chicago called "Sugathin." We said that this product contained 25 per cent. of sugar; actually it contains 4 per cent. I don't know how many of you know W. J. Fitzpatrick personally—Fitz to some of us—but when Fitz read about my farm, he wrote me saying that he was interested in livestock enterprises himself and that he had an excellent stud book. I haven't had a chance to look over his stable yet but I have no doubt, knowing Fitz as I do, that his stock have good pedigrees—thoroughbreds in fact.

This business of being a "weak end" farmer has some drawbacks. So far my "work end" guests have been conspicuous by their absence. All have volunteered to shake the cocktails while the rest of the gang shakes the dirt. That ain't what I want.

PRIORITY TRICKS

Last month we mentioned that the difficulty of getting material is fostering invention and ingenious substitution. As we come across worthwhile instances of this we will pass them along. If you run into any unusual cases, I will appreciate it very much if you will let me have the details so that I can tell the story and give full credit to the man responsible.

The first of these gadgets is the brain child of Ward Hastings, Plant Engineer of Chattanooga Medicine Company. Ward is, by the way, one of the best plant and packaging engineers I ever worked with. He is very inventive and can be depended upon to pull the right gadget out of the hat at the proper moment. A few weeks ago we had the problem of converting a couple of large storage tanks into mixing tanks. We wanted to install side entry mixers; we did not have the mixers nor any chance of getting them within the required period of time. We could have hobbled together some mixing devices out of scrap iron and we were going to do it when Ward sprung his idea. He went down town to a motor boat accessory store and bought a couple of motor boat propellers with shafts attached. These, incidentally, were chromium plated. Pieces of two inch pipe were welded to the sides of the tanks to form outboard bearings and stuffing boxes. A couple of motors were salvaged from junked equipment and in short order we had two excellent agitators going at very small expense.

TANKS

Since it is becoming steadily more difficult to get any kind of metal and virtually impossible to get corrosion proof materials, I have been astonished that more people are not using ceramic ware. There is a general aversion to ceramic ware because of its size, weight, and fragility. I think some of its weak points have been over emphasized. Ceramic tanks will crack if you haul off and wham them a good one with a hammer. But in all my experience I have never seen a ceramic tank broken in service although I have seen some that were in constant use for fifty years. If you want to take extra precautions against carelessness, you can protect the exterior of ceramic tanks with strips of wood. However, I doubt if this is necessary in the majority of cases.

Ceramic tanks of course have been rather ugly because our trade has never put pressure on the firms

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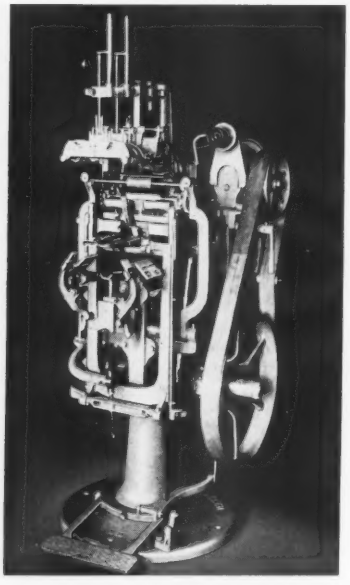

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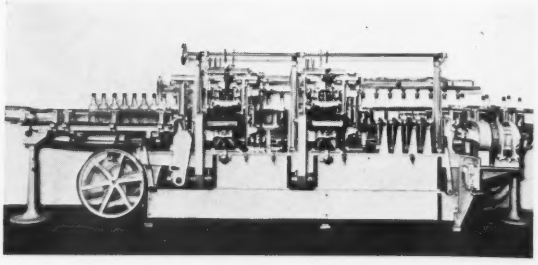

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making ceramic ware to produce either white or colored tanks which they could easily do. Some ceramic firms still produce the so-called "porcelain" bathtubs and toilets which are nothing but highly glazed ceramic ware. It seems to me that if such firms can make bathtubs they can make tanks. As a matter of fact, I believe either U. S. Stoneware or General Ceramics have produced large white glazed tanks. The U. S. Stoneware Co. has produced a line of mixing tanks in capacity suitable for average purposes.

Sometime ago we discussed the substitution of wooden tanks for those commonly used because wood is corrosion proof and cheap. At that time we suggested as an improvement of the usual wooden tank, that laminated plywood such as is used for motor boat hulls be employed. The U. S. Plywood Co. made up a tank for us and as far as its appearance was concerned, it looked just like any metal tank and it was seamless. We had this tank tested at Norwich Pharmacal Co. and we found that, while plywood would hold water all right, alcoholic solutions had a tendency to penetrate through the bonding agents of the woodplies. However, the tests indicated that by treating the interior of the tanks with a suitable solvent resisting coating, it is possible to make strong durable tanks.

ONE STORY BUILDINGS

As you know from frequent repetitions, we are an ardent disciple of one story buildings in which the bulk of the handling operations are done on one floor while non-productive functions such as offices, laboratories, employees' service areas, are located on the second or third floor. There are some cases where an extension of the second floor may be used as a manufacturing department where gravity flow to the packaging department is essential. A timely vindication of the one story plant idea was contained in Jack Halsby's letter which I published last month. I hope you noticed that in describing the effects of a high explosive bomb which struck his factory Jack mentioned inferentially that one reason why the whole plant was not put out of business was because of the fact that it was a one story building. The experience of the English has shown that when a high explosive bomb strikes a multi-story structure, it either demolishes the building completely or tears a hole through all or several floors before its force is spent. You can blow a chunk out of almost any part of a one story building without putting it completely out of action.

I don't want you to think, however, that I am advancing air raid indestructability as a reason for the construction of one story structures. As a matter of fact, I honestly think that we all have had a bellyful of war hysteria and it gives me a pain in the anus when I read of a factory in Spodunk, Iowa, being built without windows as a protection against bombing raids or when I read of another factory in the interior building bomb proof shelters for its employees. People should realize, instead of getting hysterical, and spending a lot of money foolishly, that there is still, in spite of the war, such a thing as common sense. When you consider the fact that England is located virtually under the German guns and only a few miles by air away from the Axis air bases, only a comparatively few of her towns and cities actually have been bombed. In order to reassure yourself, take a paper and pencil and try to list thirty towns and cities out of the hundreds in the British Islands that actually have been bombed to date. Then instead of wasting money on useless air raid preparations, give everybody a raise and go back to work.

VIBRATION CONTROL

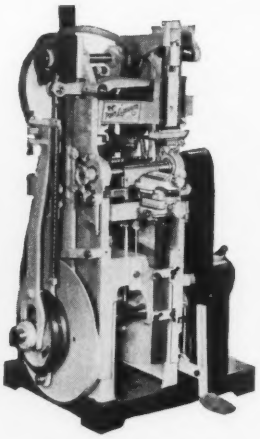
When vibration of equipment is discussed, we usually approach the problem from the standpoint of reducing noise. Did you ever realize, however, that vibration causes losses in power transmission, it causes excessive machinery wear; and it is directly the cause of excessive building depreciation. A good many floor and wall cracks are attributed to settlement when actually they are the result of prolonged vibration. All rotating, reciprocating, and impact machinery should be insulated against vibration. You can install vibrators directly between the machine and its base or between the base of the machine and the existing floor. If the equipment is very heavy and it requires a huge concrete foundation for inertia mass, you can install the vibrators not only between the equipment and the foundation, but also between the foundation and the floor. It seems incredible to think that a few small fragile looking vibrators will support tons of weight, but such is the fact. I have used and recommend the insulators—or "isolators" as the company calls them—made by the Korfund Co., Inc., Long Island City, New York.

VARNISH

Occasionally you may find it essential to varnish or paint process equipment which is subjected to relatively high heat. I am thinking of copper kettles and the like. The Westinghouse Electric and Mfg. Co., manufacture an insulating varnish No. 7826 which has extraordinary properties. It is resistant to severe temperatures and high rotation speeds and it was, in fact, designed for insulating armatures and the like. This material can be applied to stills and kettles and baked on by means of a couple of infra-red lamps. Thus you can preserve the original attractive copper finish of the kettles for an indefinite period. The varnish referred to is relatively transparent.

DUST CONTROL

It frequently happens especially in air conditioned areas that a particular location is the source of noxious or toxic dusts which you may not desire to pick up and carry through the entire dust exhaust system. In the case of very fine or poisonous dusts such local areas may be difficult to handle. Therefore, you may be interested to know that the Claude B. Schneible Co.,



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3951 Lawrence Ave., Chicago, Ill., manufactures a line of spray type unit collectors. These small units are intended for exhausting small rooms or individual processing machines. The fans, cyclones, water sprays, and filters are all integrally built. These units are available in capacities from 300 to 1500 CFM. Their design makes it possible to pass dust laden air through water sprays so that removal is positive and complete. Integrally built filters and a sump permit the continual reuse of the water, thus insuring low operating cost.

NEW AGITATOR

My friend, Dick Underwood, President of Patterson Foundry and Machine Co., East Liverpool, Ohio, has just sent me a description of a new and revolutionary type of agitator developed by his company. This radical departure in agitator design makes it possible to adjust the agitator to suit specific problems. It is very simply designed and consequently easy to clean and adjust. It consists essentially of a truncated cone open at both ends and mounted on a vertical shaft on which it is rotated. The cone may be mounted with its base upward or downward and a single cone may be used or a series of them. Moreover, these cones may be arranged with perforated sides or they may be equipped with screens or perforated ends.

This agitator, called the Centricone, will fit any size or shape of tank. It is designed to provide the correct degree of swirl, turbulence, velocity, vortex, and direction. When the Centricone is mounted with its small diameter lowermost on the shaft, the cone imparts a lifting action to the material and by reversing the cone a downward displacement is secured. When the cone is mounted with its base uppermost the arrangement is ideal for bringing solids which have settled into the bottom of the tank into suspension again and it is also very useful for maintaining uniform suspensions in such operations, clarification, etc. Because the cone is perfectly smooth, starting loads are light even when the cone is immersed in the settled solid.

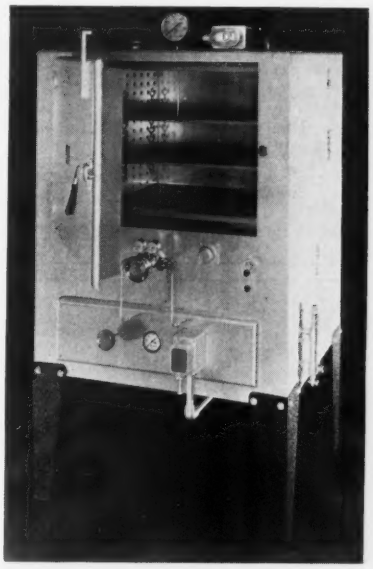
By reversing the cone a downward discharge is created, a feature which is desirable in dissolving materials having a tendency to float. By using a series of cones, several effects may be secured. The upward driving effect of the lower cone may be counteracted by the downward driving effect of the oppositely mounted cone above. Similarly, the cones may be mounted in series. The effect of series mounting is indicated by a test on paper pulp solution. This heavy pulp solution was contained in a tank 10′ in diameter by 10′ high. Dye introduced at the top appeared in the bottom of the tank in 15 seconds and the entire batch was uniformly dyed in 60 seconds.

The cones can be combined with cylinders, or, combinations of cones of different diameter can be mounted on the same shaft to deal with materials having a tendency to stratify. By equipping cone with a screen and mounting it so that it drives downwardly, the cone itself can be used as a container for solids which it is desired to dissolve at a high rate of speed. If you have any unusual mixing problems get into touch with Liverpool as a testing laboratory equipped with this new agitator is maintained for your convenience.

EXPLOSION-PROOF CABINETS

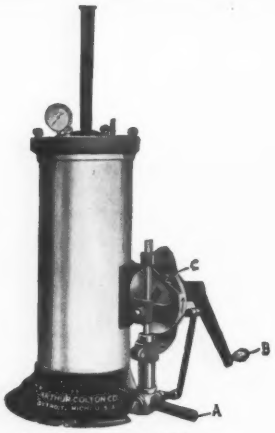
The Precision Scientific Company, 1730-33 North Springfield Ave., Chicago, announces the introduction of explosion proof constant temperature cabinets, and in which flammable volatile liquids, highly flammable gases, mixtures or other highly flammable substances may be manufactured, used, handled, or stored in other than their original containers.

Explosion-proof features embrace complete absence of exposed contacts, electric controls, switches, or wiring terminals, so as to prevent ignition of explosive gases in the atmosphere, or inside the cabinet; safety release latches on doors, for instant opening under the

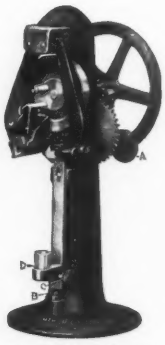


pressure of an explosive burst which might occur inside the cabinet; also special venting to exhaust dangerous gases.

Steam, instead of electricity, is used for heating and a motor-driven turbo-blower produces a forced circulation of heated air across the working chamber. Temperature range is 35 to 150° C., automatically controlled by a pneumatic thermostat which opens or closes an air-operated steam valve to control the steam supply. Control accuracy is between plus or minus 2° and 3°, depending upon operating temperature. The cabinets come in four sizes and can be operated at any steam pressure between 0 and 100 lbs. saturated. Operating temperature is governed by steam pressure, and cabinets are automatically safe-guarded against excessive temperatures by a pressure release valve set to release at 100 lbs.



No. 3 Hand Paste Filler



Hand Tube Closer

Foot Power Crimper

Colton Hand Operated Machines

No. 3 Collapsible tube filler (hand operated) for tubes up to 1" x 5½" long.

Hand operated tube closer made in two sizes and styles to seal tubes with the Colton Clipless Closure or to seal tubes for applying clips.

Foot operated crimper for applying final corrugation to the closed end of the Colton Clipless Closure which gives it a decorative appearance as well as greater rigidity to the closed end of tube.

We also furnish this same machine without the crimping jaws for applying clips.

Our catalog No. 11 illustrates a variety of fillers and closers to suit production required. Please make us acquainted with your requirements and capacity, and we will be pleased to recommend machines best suited for your purpose.

ARTHUR COLTON COMPANY

2620 East Jefferson Avenue Established 1884 **Detroit, Michigan, U. S. A.**

Quick --- Easy to Handle

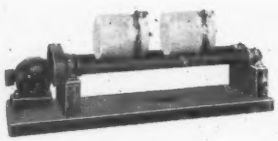
ABBÉ ROLLING MACHINES

Using

JARS, BOTTLES, JUGS or CANS

Batch Mixing
Blending or
Grinding and
Keeping Heavy
Materials in
Suspension

Simply place any jar, bottle or can—any size from a quart to 6 gallons—on the rollers and the machine does the rest. You get complete mixing, grinding or processing at any desired rate. Rubber covered rollers prevent slippage or breakage. No clamping, fastening or adjusting. Minimum power—low cost.



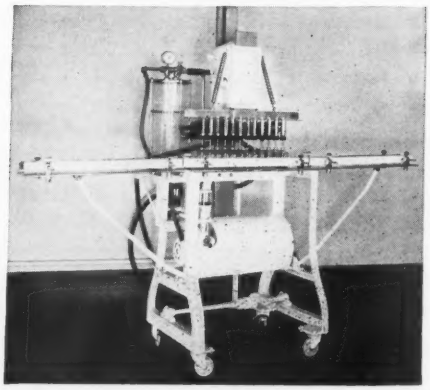
These machines are made in double or multiple rows of rollers of any length in single, double or triple tiers for any desired arrangement of containers.

Write for Bulletin 56

ABBÉ ENGINEERING CO.

56 Church St. **New York, N. Y.**

THE ERTEL "EMSA" FILLER IS SENSATIONAL



The performance record of this new model has surpassed our own expectations.

A low cost multiple spout vacuum filler available in stainless steel, hard rubber or plated bronze materials.

WRITE FOR PARTICULARS

ERTEL ENGINEERING CORPORATION

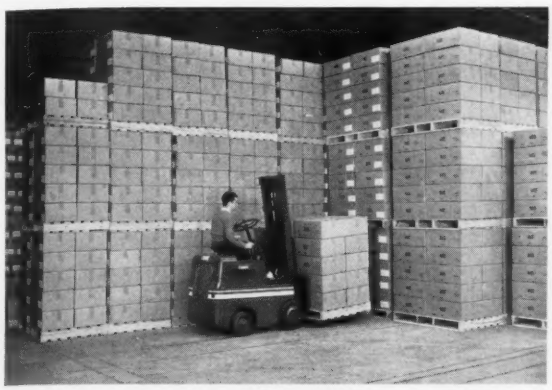
EXECUTIVE OFFICES AND FACTORY AT
KINGSTON, N. Y.
NEW YORK SALES OFFICE AND SHOWROOM
40 WEST 48th STREET

MANUFACTURERS OF LIQUID HANDLING EQUIPMENT

POWER TRUCK

Many superintendents of cosmetic plants, unable to use heavy material handling equipment due to weak floor construction, have desired a light weight, compact power truck that would lift, carry and tier loads weighing up to one ton; one that could efficiently operate in congested areas, in limited capacity elevators, in transport trucks and freight cars, and up ramps.

To meet this demand Clark Tructractor Division of Clark Equipment Co., Battle Creek, Mich., has developed a sturdy, low-priced, compact, fork type truck that incorporates all desirable features in modern truck design. Christened the "Clipper," these trucks are



offered in six models, capacities 1000, 1500, 2000 lbs. with standard finger lifting heights of 60 to 108 inches, other special heights optional. Gas-powered for 24-hour continuous service, an important factor in an industry subject to seasons when plants *must* operate at full capacity, the "Clipper" has an economical four cylinder industrial truck engine, front wheel drive, rear wheel steer, hydraulic lift and tilt. Self starter and hydraulic brakes are standard equipment. The driver rides on a comfortable spring suspended seat with all controls within easy reach, thus permitting safe operation at speeds from one to seven miles per hour forward or reverse.

Assisting in the receipt of raw materials, speeding them through processing, tiering the finished product in cases and cartons ceiling high in storage, later retrieving them and loading carriers; these are a few of the many ways these dwarf-size trucks cut handling costs and increase the efficiency of modern cosmetic plants.

ON THE ALERT

One of the things that we tell every production man and engineer with whom we come into contact is that industrial operations as a whole are relatively simple and may be analyzed into a comparatively few categories. These categories differ in size and degree from industry to industry but are essentially similar in principle. Those of us who have been confined to one industry have a tendency to think in the terms, products, and equipment of that industry. When we succeed in teaching ourselves to look at basic principles and not at products, we then begin to perceive that a drug or cosmetic plant has something in common with all other factories, even a boiler factory. This may seem incredible to you but have you ever seen the rotary drum used in a boiler works for knocking a scale off water tubes? If so, you will realize that it is exactly similar in principle to the tube mill used for grinding purposes in the chemical industry or to the pebble mill used in our own trade for milling operations. A concrete mixer may seem a far cry from an ointment mixer but really it isn't and when you consider further the ease with which a concrete mixer may be loaded and discharged, one wonders indeed if such equipment is not sometimes better designed than some we are using. These are of course extreme examples but the relationship between ours and the food trades, milling industry, chemical industry, paint industry, and dairy industry and other process industries is even more intimate. There are indeed many times when it is possible to take a machine from a related industry and use it in our own without any modification at all. The necessity for keeping your eye on operating principles is again emphasized because of the increasing need for adopting substitute processes and equipment on the spur of the moment under the stress of the national emergency.

ODORLESS PAINT

A newly improved paint, designed for use in plants and offices where odors from conventional paints are offensive to workers, has been developed by American-Marietta Co., 43 E. Ohio St., Chicago. Not perfumed but actually deodorized before being canned, it makes possible painting in winter or summer without discomfort. Windows may be kept closed while the paint is being applied. The product sets in three hours and is completely dry in twelve to fifteen hours.

This paint is called Valdura No-Odor paint and may be used on plaster, wall board, wood, cement, brick, or metal and is available in flat, egg-shell, and gloss finishes. All finishes are washable and have high reflectivity value.

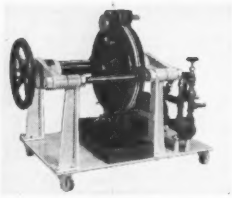
Speaking of paints, the Vita-Var Co., Newark, N. J., have developed a blackout paint for air raids. This paint may be applied to windows, skylights, and other glass openings and it is claimed that no inside light will penetrate through the coating, even with full illumination. This is what I call smart selling as it capitalizes a current topic to the enth degree.

RANDOM IDEAS

The following suggestions will help to reduce operating costs in 1942 and also will provide better building utilization and services: Repair defective floors. Insert floor plates where service is exceptionally severe. Where floor levels vary slightly between buildings, con-

CRYSTAL CLARITY
WITH A HORM

Get the snap and sparkle of quality filtration into your product by using a Horm filter and Horm filter disks. Get this quality with no loss of quantity in production. Horm equipment—Horm graduate engineers form a combination that is capable of achieving the ideal for manufacturers in the drug and cosmetic trade especially.

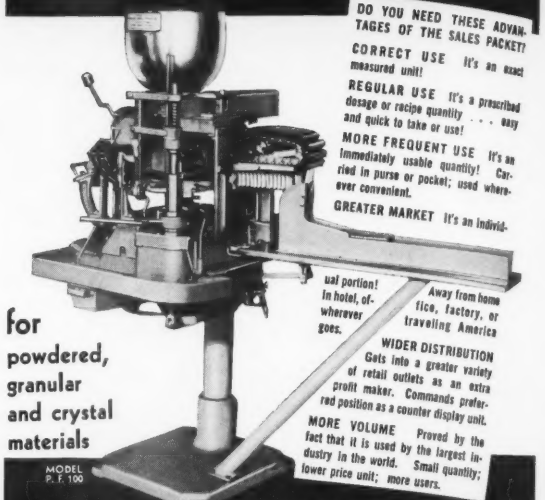


HORM JUNIOR FILTER
3 - 5 GALS. A MINUTE CAP.

Send for complete catalog of Horm equipment. Samples of Horm asbestos filter disks sent on request.

F. R. HORMANN & CO., INC.
127 Boerum Place *Equipment Engineers* **Brooklyn, N. Y.**
FILTERS TANKS MIXERS FILLERS

A CONCISE HISTORY OF PACKAGING



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CORRECT USE It's an exact measured unit!
REGULAR USE It's a prescribed dosage or recipe quantity . . . easy and quick to take or use!
MORE FREQUENT USE It's an immediately usable quantity! Carried in purse or pocket; used wherever convenient.
GREATER MARKET It's an individual portion! Away from home In hotel, office, factory, or wherever traveling America goes.
WIDER DISTRIBUTION Gets into a greater variety of retail outlets as an extra profit maker. Commands preferred position as a counter display unit.
MORE VOLUME Proved by the fact that it is used by the largest industry in the world. Small quantity; lower price unit; more users.

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Brown-made Packets of various stocks, printed to specifications, up to 3" x 4½"
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Reduces power consumption 75%

Saves 50% in processing costs

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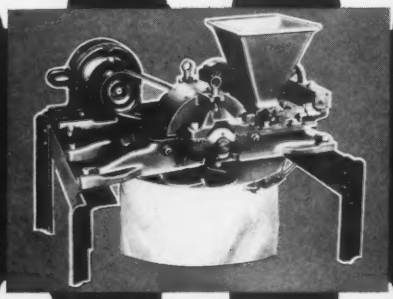

Skilled attendants not needed

It is dustless in operation

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sider the installation of ramps so that elevator service can be minimized. Widen all narrow doorways and install swinging doors with bumpers so that men handling heavy aisle trucks can go through doors without having to prop them open.

Keep walls and ceilings brightly painted to increase the reflective power of your LIGHTING. Keep all stair treads and hallways brightly lighted and in perfect repair. Increase the quality and quantity of lighting in all working areas by the installation of fluorescent lighting fixtures. Include lighting fixtures on your regular inspection trips so that blown out bulbs and dirty reflectors can be repaired or cleaned before they cease to function altogether.

Keep window sashes caulked or puttied to reduce HEAT loss. Insulate roofs to reduce heat loss in the winter and to reduce the temperature of working places in the summer. Check heating system to make sure an adequate quantity of warm fresh air is always available.

Study your material handling EQUIPMENT such as lift trucks, wheel trucks, conveyors, etc., in order to make sure that your material handling equipment is suitable for the building in which you are located and is of the most economical type. Go over all productive equipment to make sure that wearing surfaces such as cams and gears are in good order and that bearings are snug. Check machine lubrication regularly to make sure that no bearings are missed by the person usually responsible for oiling. Check all machine parts and make sure that they are being kept clean and that wear can be detected before the part actually breaks down in service. Keep all instruments, materials, protective devices, motors, controls, transformers, and wiring in tip top condition to reduce power requirements and to prevent waste. Check tanks, valving, and piping.

Investigate your POWER supply system. If you are making power, are you sure that you will be able to take care of increased demands for the next few years. If not, it might be desirable to consider the introduction of an auxiliary Diesel operated generator or some similar equipment.

Go over all PUMPS to make sure that they are functioning at maximum efficiency. Pumps lose efficiency through leakage, wear on the rotors, and wear in the bearings. Wear of this sort means loss of time and increased power consumption.

Keep all sanitary facilities immacuately CLEAN. Install dust removal equipment wherever dust is created. Make sure that a fresh cold WATER supply is provided for workers, preferably through the installation of refrigeration units. One cold drink will save two extra trips to the fountain. Go over all FIRE protection and prevention equipment, making certain that it is adequate and easy to get at and in excellent working order. Since a lot of time is lost in looking for people in the plant, consider the advisability of some sort of a CALL system.

POWER COST

If you manufacture your own high pressure steam in quantities, have you ever given any thought to the possibility of generating some or all of your own power through the use of turbines? I mention this because few people realize that a turbine can be made to serve the purpose of a reducing valve and, while serving such a purpose, can be made to operate a generator so that you can bleed off from the discharge port of the turbine, live steam at whatever pressure your process requires. For example, if you were operating your boilers at 250 pounds pressure and all you needed for process work was 50 pounds, you could design your power setup so that your process steam would be delivered from the discharge of the turbine at 50 pounds.

After the war is over I think a good deal more consideration will be given to the use of turbine generators because they are obtainable in extremely wide range of sizes. For instance, a Coppus turbine which is handled in New York by G. H. Bolle, 120 Liberty Street, is carried in standard sizes from 2 to 200 horsepower.

MOBILIFT

This is the name of a gasoline driven lift truck made by Mobilift Co., 501 West 30 St., New York, which should be of interest to you because it is the least expensive power operated lift truck of which we have knowledge. The cost of a 2,000 pound job having a maximum lift of about nine or ten feet is considerably less than $2,000. Although this little truck is equipped with a gasoline engine, this engine is provided with safety devices and is approved by the Board of Fire Underwriters so that the machine when operated in a closed plant is neither a fire nor a health hazard. With this little truck you can pick up pallets, skids, or bales and you can stack them just as readily as you can with any other power operated lift truck. In addition to all this, it has the advantage over conventional gasoline or electric battery driven lift trucks of having an extremely short turning radius which makes it possible to use it in narrow aisles. Some of the larger trucks, as you know, require ten or twelve foot aisles in which to maneuver. This truck will turn around in its own length which is less than eight feet. This feature is made possible by virtue of the fact that the truck itself is short and the operator is required to stand up while operating it. The motor and all of the driving mechanism is housed in a pyramid-shaped base which is located very close to the base of the lifting forks. As in other cases, you can get any kind of lifting fork your work requires. Of course, you will have to get some sort of a priority to buy one but even though you do not use these trucks until after the war, you should learn about them now.

SEND FOR A COPY

B. F. Sturtevant Co., Hyde Park, Boston, Mass. have a comprehensive booklet on centrifugal compressors of various types.

PEDER DEVOLD COD LIVER OIL
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Los Angeles Minneapolis New Orleans Philadelphia St. Louis

The COMPOUNDER'S CORNER

BENTONITE OINTMENTS

A fifteen per cent. suspension of Bentonite in water makes an ointment base which forms a dry film on the skin in two to three minutes and is firmly adherent, does not rub off on the clothing, but is easily removed by gentle washing with water, according to Dr. George V. Kulchar, of the Division of Dermatology and Syphilology, Department of Medicine, Stanford University, San Francisco, writing in *Archives of Dermatology and Syphilology* for July 1941 (44:1, 43).

Bentonite base in particularly well suited for use in the treatment of eruptions and pruritis of the anogenital region. This area is always clothed and it is difficult to keep medication in place and prevent its removal by clothing. The dry film formed by the new base eliminates that problem and keeps medication *in situ*, affording relief for a considerable period of time.

A second outstanding quality of Bentonite base is the fact that it does not spread to the hair when applied to the scalp. Thus it overcomes a disagreeable feature of most ointments. Treatment of skin conditions is cleaner and less of an ordeal, particularly if coal tar or dyes are used as the medication, for these substances are ordinarily disagreeable in the usual bases.

Patch tests on a series of normal persons have given negative reactions, indicating that Bentonite is not primarily irritating to the skin.

Bentonite base has been used for salicylic acid, ichthammal, ammoniated mercury, resorcinal, sulfur, naftalan, coal tar, peruvian balsam, gentian violet and juniper tar, alone and in combinations. No incompatibilities have been observed.

The conentrations and combinations of medicaments used are the same as ordinarily employed in ointments.

Ointments made with Bentonite base maintain their consistency longer than three months despite changes in temperature, if evaporation is prevented.

The usual method of making Bentonite suspensions by sprinkling the clay on the surface of water a little at a time and allowing it to swell and form a gel is unsuitable for concentrations above 7 or 8 per cent. To make a 15 per cent. suspension, add the Bentonite to the water under constant agitation with a mechanical mixer or use a mortar and pestle until it absorbs the water and then rub it up on a slab with a wide spatula until a smooth, homogeneous mixture is obtained. The finished base has a consistency of library paste.

SULFANILAMIDE IN GLYCERIN

The application of a supersaturated solution of sulfanilamide in glycerin is routine in the treatment of all cases of impetigo; acute infectious dermatitis of the ears, scalp or feet; coccigenic sycosis; folliculitis, septic ulcers and other streptococcic and staphylococcic infections in his private practice and at the Clinic of the State University of Oklahoma, according to Dr. Everett S. Lain, of Oklahoma City, Okla.

Dr. Lain reasoned that the administration of sulfanilamide internally with the attendant nausea and other side-effects might be avoided in the treatment of non-febrile and obviously localized infections if a solution were used. Sulfanilamide is only slightly soluble in water so Dr. Lain uses glycerin. He mixes 4 to 8 Gm. of the drug with 30 cc. of warm (not hot) glycerin, and he states that the excess sulfanilamide serves as an excellent protective dressing.

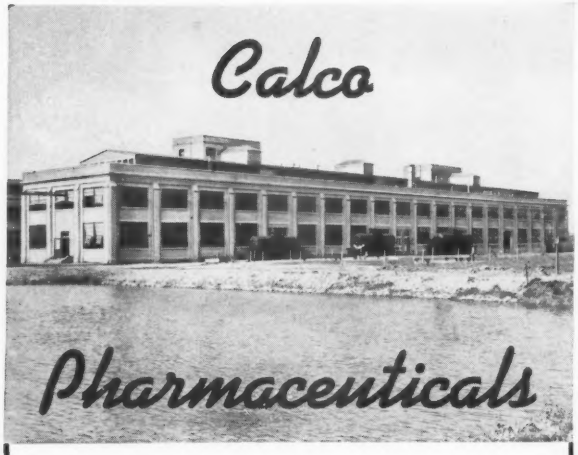
The solution is applied with a swab or the finger to the affected areas 2 or 3 times a day without bandaging. The time required for a cure may be shortened if daily applications are made with thin strips of gauze saturated with the solution and bandaged. If sheets of paraffin paper are applied over the saturated gauze under the bandage, the diseased parts will be kept moist and comfortable and the crusts which usually adhere to the gauze will come away with the change of the first dressing. There may be a mild smarting at the first application, due to the action of the glycerin on the area, but this disappears in a few seconds and the dressing becomes soothing and comfortable. —*Arch. Derm. & Syphil., 44:2 (Aug. 1941), 257.*

SYNTHETIC PINE OIL

A new process for the synthetic production of pine oil from gum turpentine, has been announced by the Hercules Powder Co., Wilmington, Del.

The process produces synthetic pine oil of substantially the same chemical and physical properties as natural pine oil. It may be described chemically as a well-defined mixture of terpenes and secondary tertiary alcohols having a mild pine aroma.

Laboratory and plant tests indicate the new pine oil is suitable for all of the important uses for which pine oil is now employed: textile wet finishing, paint and varnish manufacture, paper coating, essential oils, industrial and commercial laundering, disinfectants, liquid scrub soaps, industrial cleansers, cattle sprays, rag boiling, leather processing, flotation reagents in mining metals,



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Our large production and close selling margin make it possible for you to buy standardized, air-floated POWCO BRAND Neutral Soaps of *better quality—at a saving.*

If you manufacture a tooth paste, tooth powder, or a toilet requisite, you want the choice of soaps best suited to your formula. That's why POWCO BRAND Soaps offer you a wide range of characteristics from which to choose. And once you adopt a POWCO BRAND Soap you always get the same *uniformity* of physical and chemical properties because they are *laboratory controlled.*

Our laboratory will gladly work with you in determining the POWCO BRAND Neutral Soap which fits your formula most advantageously.

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metal polishes, liquid hand soaps, pine-scented bar soaps, and solvent for synthetic resins.

SUPPOSITORY BASES

Swiss pharmacists are finding it increasingly difficult to obtain supplies of cocoa butter and a search has had to be made for a substitute. For use in suppositories this substitute must set hard enough to retain its shape and melt at the temperature of body heat. The suitability of available formulae has been investigated by J. Buchi and P. Oesch, of Zurich, and their results reported in the *Journal Suisse de Pharmacie*, 1941, 79, 385.

The authors have grouped the formulae into three classes: 1. Partial substitution of the cocoa butter. 2. Total substitution with fatty ingredients. 3. Total substitution with non-fatty ingredients.

1. *Partial substitution* was achieved by various mixtures using white wax, cetaceum, wool fat, hydrogenated arachis oil, olive oil, paraffins, etc. Suggestions from the war years 1916-18 include a formula using cocoa butter, wool fat and hard and soft paraffin. This gave a good mass, but the melting-point is too high (39°). Another formula consists of cetaceum, olive oil and cocoa butter. This mixture has a suitable melting-point but the mass is on the soft side.

In a different type of method the medicament is rubbed down with kaolin and the suppositories pressed out from a granulated mass obtained by adding a little melted oil of theobroma. The procedure is criticised because the kaolin may prevent absorption of the medicament. In place of the kaolin the authors suggest that sugar, sugar of milk or glucose be used:

Extract of belladonna	0.05 gm
Cocoa butter	0.40 gm.
Sugar of milk	2.0 gm.

This improvement on the kaolin method using water-soluble diluents is the principle used in a 1940 Continental patent.

2. *Total substitution* can be effected by mixtures of fats and oils, as in the following:

White wax	2.5 gm.
Hard paraffin	5.0 gm.
Wool fat	5.0 gm.
Cetaceum	35.0 gm.
Liquid paraffin to	100.0 gm.

The product resembles cocoa butter in appearance as well as its physical characteristics, but the possibility exists, as the authors point out, that the ingredients may soon be as scarce as cocoa butter itself. Other suggestions include mixtures of cetyl alcohol and arachis oil, and hydrogenated arachis oil.

3. *Total substitution with non-fatty substances*—The glycerin-gelatin base comes into this class, but most of the other methods are covered by patents. They embody such ingredients as urea, sugar and lipoids, as well as mixtures containing stearic acid and triethanolamine, etc.

ANGINA PECTORIS

Freedberg and his collaborators determined the pharmacodynamic action of drugs on 15 patients with angina pectoris repeatedly mounting and descending a two step stairway. The administration of glyceryl trinitrate, theobromine with sodium acetate or quinidine sulfate enabled some patients to do a measurably greater amount of work under standardized conditions and, at the same time, prevented the changes in the ST segment which result from exercise. Inert drugs had no such effect. Digitalis was given to the patients and in some it increased the frequency of attacks in daily life, decreased the amount of work which could be performed under standardized conditions, increased the electrocardiographic changes following exertion and produced electrocardiographic changes similar to those observed after exercise without medication.

The inhaling of octyl nitrite by patients with angina pectoris was effective in preventing attacks on exertion and in shortening the duration of such attacks. Its action is similar to that of glyceryl trinitrate and amyl nitrite. Inhalation of octyl nitrite permits more rapid absorption but makes accurate dosage impossible. Dose for dose, octyl nitrite is much more costly than glyceryl trinitrate but less so than amyl nitrite. *Am. Heart J. vol. 22, p. 494.*

RABBIT THROMBIN HEMOSTATIC

Lozner and his associates observed the effect of rabbit thrombin on 11 patients bleeding from small wounds. Nine of the patients had hemorrhagic diatheses (4 had hemophilia, 3 symptomatic thrombocytopenic purpura, 1 hypoprothrombinemia and 1 hereditary thrombasthenia) and 2 patients had hypertension with epistaxis. Dry, powdered rabbit thrombin was usually used to impregnate a dressing, pack or "gauze bite" dampened with sterile saline solution. The dry powder comes into immediate contact with the bleeding surface. With only one exception the hemostasis produced by rabbit thrombin was complete and immediate. That is, as soon as the dressing was applied hemorrhage was arrested. In 1 patient with hypertension and expistaxis bleeding had persisted for fourteen days prior to rabbit thrombin therapy, despite the use of various hemostatics and four blood transfusions. The patient in whom hemostasis was at first only partial had complete and immediate hemostasis after two subsequent applications on succeeding days. The unsatisfactory result of the first application was probably due to error in application. Rabbit thrombin solution was also of value as a local hemostatic but was not as effective as the dry powder. There were no toxic effects after the use of either form of thrombin. The hemostatic effect of rabbit thrombin is apparently accomplished by its instantaneous precipitation of fibrin. *Am. J. Med. Sci., vol. 202, p. 593.*

AMPHETAMINE SULFATE IN EPILEPSY

Robinson gave amphetamine sulfate to 58 epileptic patients to circumvent the untoward toxic effects (irritability, drowsiness, ataxia, aggressiveness, anorexia, vertigo, nystagmus and tremor) of anticonvulsant therapy. The therapy usually consisted of phenobarbital. The daily dose of amphetamine sulfate ranged from 5 to 30 mg. It was given orally. The drug counteracted the drowsiness in 39, or 64.2 per cent. of the 56 patients having this manifestation. It combated along with the drowsiness the ataxia in 3 of 13 patients. It counteracted irritability in 3 of 15 patients. Giving amphetamine sulfate did not usually correct aggressiveness. It was necessary to give amphetamine sulfate only temporarily to patients who slowly acquire a tolerance to large doses of phenobarbital. In such patients it overcame the toxic symptoms until tolerance was established, when it could be withdrawn. In other patients, toxic phenomena reappeared unless the amphetamine sulfate therapy was continued as long as the phenobarbital medication was not reduced. In no case did the use of amphetamine sulfate alter the incidence of seizures. What it did do was to make it possible to reduce seizures in many patients by giving them adequate anticonvulsant medication without toxic manifestations forcing discontinuance. *Am. J. Psychiatry, vol. 98, p. 215.*

Perfumers Shelf

RARER ESSENTIAL OILS

Another new essential oil is the peach oil obtained by F. B. Power and V. K. Chesnut, by distilling and extracting the distillate of prunus persica Jess. The oil was obtained in a yield of only 0.00082 per cent. It was a pale yellow, smelled strongly of peaches, and solidified on cooling below the normal temperature.

The oil could be used for preparing modern fancy perfumes, but any addition over 5 per cent. would be excessive and also extremely expensive. The constituents of the oil are: linalyl formate, linalyl acetate, linalyl valerianate, linalyl caprylate; probably also cadinene, acetaldehyde and furfurol. No information is available regarding the constants of peach oil.

Rambiazina oil is also little known; it was obtained by G. Louveau as a yellowish-green oil, smelling strongly of camphor with a hint of roses, by water-vapor distillation of the leaves and twigs of the species of helichrysum (Helichrysum Benthami?) known in Madagascar as "Rambiazina."

Despite its camphoraceous odor, the oil is well suited for heavy oriental and green perfumes; an excess should be avoided, but very striking effects can be attained with small additions. As regards soap perfumes, it is recommended for pine needle, chypre and fougere types.

Rambiazina oil is composed of about 11 per cent terpene alcohols (borneol, geraniol and possibly also linalol), 2 per cent. esters (mainly bornyl acetate), 1 per cent. phenols (eugenol), less than 1 per cent. oxy-compounds (chiefly camphor), 32-34 per cent. eucalyptol and 15 per cent. sesquiterpenes.

According to S. Sabetay, fresh flowers of *Helichrysum augustifolium*, collected in Provence, yielded 1 per cent. of a concrete oil by extraction with petroleum ether. This concrete was chestnut-yellow in color and had a strong, distinctive odor. The acid and ester values were determined by titration in Wood's light in the presence of methyl-umbelliferone as fluorescent indicator. Extraction of the concrete with ethyl alcohol gave the absolute oil in 85 per cent. yield, while distillation under reduced pressure in the presence of water vapor yielded 4.9 per cent. of a rather viscous essential oil in which eugenol, acetic acid, caprylic acid and an azulene type sesquiterpene were identified as constituents.

Paracoto bark oil is of interest for perfumery; it is obtained from a previously unknown Monimiacae occurring in Bolivia. The oil has a very pleasant odor and could be used in very heavy compositions where it is required to have, if possible, a sweet top note or at least a large percentage of bergamot or other citrus oil. Paracoto bark oil can be used to great advantage in complexes of the Crepe de Chine, Pompeia, Maja, Maderas de Oriente, Tropiques, Cuir de Russie, Bamboo, Chypre and Fougere types. The oil could also be of use in the soap industry.

The constituents of paracoto bark oil are chiefly, according to O. Wallach and T. Rheindorff, candinene and methyl eugenol; and according to J. Jobst and O. Hesse, also α and β paracotene. Probably, however, the paracotene is a cadinene hydrate, but in this case the formula would be $C_{15}H_{26}O$, in contradistinction to the formula $C_{15}H_{24}O$ specified by Jobst and Hesse; it is possible that these workers were dealing with a mixture of sesquiterpenes.

In the eastern part of the Ivory Coast there occurs a shrub known as Popowia capea (E. G. and A. Camus), from the leaves of which, according to Roure-Bertrand Fils, one can obtain on distillation 0.28 to 0.59 per cent. of an essential oil which has a very powerful odor resembling that of patchouli. This is known as Cap[5] Oil.

The oil could be used in fine perfumery in Pompeia, Chypre, Crepe de Chine, Maderas de Oriente, Fougere, Tropiques, Mitsouko types, etc. Nothing is known regarding the composition of the oil, but it probably contains cinnamic alcohol or its esters and, very probably, aldehydes.

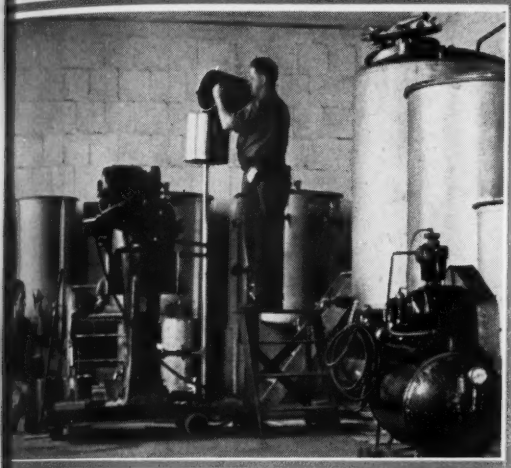
Another oil which is comparatively new to perfumery is the saffron oil, which R. Kuhn and A. Winterstein obtained from fresh saffron, by extracting first with petrol ether and then with ether, to begin with in the form of the picro-crocin $C_{16}H_{26}O_7$ in a yield of 4 per cent; then, owing to the decomposition of the glucoside, saffron oil was obtained, which had a powerful odor recalling saffron. The oil could be used particularly for finer perfumery.

Sarsaparilla root oil has so far played no part in practical perfumery; it was obtained by F. B. Power and A. H. Salway, in a yield of 0.01 per cent. from the roots of various smilax varieties, as a yellowish, pleasant-smelling liquid.

As regards its constituents, so far only furfurol has been found and the presence of a phenol ascertained.

R. L. McMurray obtained by distilling in water vapor the fresh flowers of a subspecies of the common yarrow (viz. achillea millefolia lanulosa Nutt. Piper), 0.03 per cent. of a colorless essential oil which, as opposed to the ordinary yarrow, contained no azulene. Nothing is known about the constituents of the oil.

The oil could find application in both the perfumery and soap industries, particularly for perfumes of the fern va-



Upper Left: Every oil entering our Receiving Department, whether of our own manufacture or from outside sources, is sampled and subjected to from six to a dozen or more rigid tests before being accepted for use.

Left: Careful centrifuging is but one of the precautions taken to insure absolute purity and cleanliness of product.

Center, above: In our completely equipped Control Department, samples undergo numerous precision tests to insure their conformance with the highest commercial standards. In this picture, a laboratory technician is recording specific gravity of an incoming sample of oil.

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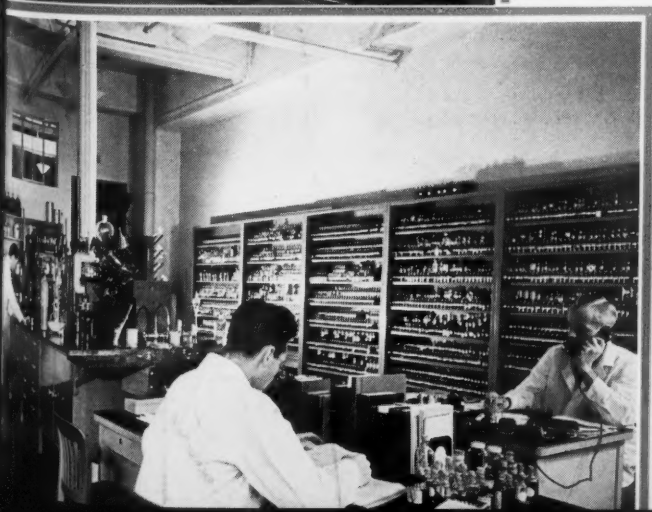
Lower Left: The making of better-flavored food products is the purpose behind every problem handled by our Flavor Research Laboratory.

Center, below: With us, careful, uniform packaging is a fetish. Easy pouring, light-proof bottles, clearly labeled and sealed with a tapered, easy-to-remove, first quality cork, are topped with a tamper-proof metal cap. The latter, an exclusive feature of FRITZSCHE BROTHERS' packaging, insures quality of content from the time it leaves our plant until its receipt by the customer.



enter, above: In our com-letely equipped Control De-rtment, samples undergo umerous precision tests to sure their conformance ith the highest commercial ndards. In this picture, a boratory technician is re-rding specific gravity of an coming sample of oil.

Upper Right: Here is a part of our Perfume Research and Service Laboratory. The work of this department, involving many hundreds of complex oils and aromatics, demands of its personnel extraordinary ability and rare creative skill.

Right: One entire laboratory, —actually a miniature soap plant—is devoted solely to the problem of soap perfuming.

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Right: In our Sub-Division Laboratory, hundreds of dif-ferent items are carefully weighed, packaged and labeled in an atmosphere ideally regu-lated for the handling of deli-cate oils and aromatics.

Lower Right: Properly de-signed containers and quick dispatch lend a final touch of satisfaction to each order as it leaves our Shipping De-partment.

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riety, as it would definitely enhance the power of the complex.

Skimmia laureola oil should also be of some interest; it is obtained in India and Afghanistan from Limonia laureola DC and has an agreeable odor reminiscent of oranges. J. L. Simonsen obtained on distilling leaves dried in the shade a yield of 0.5 per cent. of a faintly emerald green oil. This oil can be used in compositions of the type: Crepe de Chine, Goyesca, Maderas de Oriente, Mitsouko, Chypre, Fougere, etc., and aslo in eau de Cologne oils.

Distillation of a mixture of water and the sawdust of the wood of the Mayur Pankhi tree yields an orange-colored oil, used to scent tobacco. It is insoluble in 70 per cent. ethyl alcohol and quite different from the ordinary oils of *Thuja*. Neither norite char, Tornico earth nor acid solutions of permanganate or persulfate improved the color, but an acid solution of perborate was partially successful. The yield, color and odor are satisfactory when steam or vacuum-distillation methods are used.

An essential oil which is better known in the essential oil trade, but is not really much used in perfumery, is oil of styrax or storax, which is prepared from the styrax obtained from the *liquidambar orientale Mill.* by distillation under steam pressure; this gives a good yield, while water-vapor distillation only gives half the yield (0.5 per cent).

The oil is used for making lilac, gardenia and lily perfumes. In heavy Oriental perfumes it is almost indispensable, as its styrol content contributes largely to enhance the odor.

The composition of the oil is as follows: Styrol, styrocamphene, ethyl cinnamate, benzyl cinnamate (?), phenyl propyl cinnamate, styracin, phenyl propyl alcohol, cinnamic alcohol, vanillin. Storax oil is generally pale yellow, and less frequently dark brown.

Suitable for the soap industry would be the essential oil of *Solidago odora Ait.*, which is also known in North America under the names: Sweet scented goldenrod essential oil or Blue mountain tea oil. It is obtained, according to E. R. Miller and J. M. Moseley, in a yield of 1 per cent. (often only 0.6 per cent.) and recalls in odor both aniseed and safrole.

The oil could be used in large quantities—the price being cheap—particularly for household soap, as it has a powerful and penetrating odor. There is scarcely a lack of raw material for distillation so far as this weed is concerned.

The constituents found in the oil are 76 per cent. methyl chavicol and borneol, but there is probably a further alcohol in the oil as well as 3 volatile acids and 1 non-volatile.

As regards other solidago oils, the essential oil of solidago canadensis should be of interest to the soap industry; it is obtained in a yield of 0.63 per cent. from the fresh, flowering plant, but its odor differs entirely from the previous variety as it smells of pine needles. The oil could be used for pine-needle soap and for ordinary household soap. The following constituents have been ascertained: 85 per cent. terpenes, consisting mainly of pinene, also a little phellandrene, dipentene and presumably also limonene; also 9.2 per cent. borneol, 3.4 per cent. bornyl acetate and cadinene.

An essential oil which is of special interest for the soap industry is that of the Proteaceae stirlingia latifolia Steud., which occurs in Western Australia; the upper parts of the plant, according to a report of the Imperial Institute, London yield 0.75 to 1.0 per cent. of an essential oil.

The oil could, in the first place, be used for acacia and mimosa soap perfumes, but also for many others, such as fougere and chypre, for example.

The only constituent so far ascertained is acetophenone, which forms the chief component.

Schimmel & Co. obtained by distilling the fresh flower-heads of Tagetes patulus L., the well-known Mexican plant, taget oil in a yield of 0.1 per cent. while air-dried flowers, distilled with water-vapor, yielded 0.57 per cent. oil (calculated with fresh flower-heads, 0.08 per cent), which was brownish yellow, while the former was golden-yellow, like the flower-heads.

This extremely powerful, fruity-smelling essential oil could be used above all for chrysanthemum perfume, but also in small doses for Fougere, Chypre, Mitsouko and Pompeia.

Interesting, too, are the tetranthera oils, which are obtained from the tetranthera polyantha var. citrata Nees, a native of the Himalayas, the Indian Archipelago and Java. However, those mainly concerned are the fruit-oil and the bark-oil; these have an intense and penetrating odor. Both oils are used in the soap industry, the oil from the fruit for eau de Cologne and Verbena soap compositions, and the oil from the bark for domestic soap compositions.

The components of Tetranthera fruit oil, according to Schimmel & Co., and Charabot and Laloue are as follows: Citral, 19 per cent. alcohols, possibly geraniol, and 2 per cent. esters. Tetranthera bark oil is partially composed of citral and citronellal; this is also confirmed by Charabot and Laloue, who found in the oil 7 per cent. citral, 10 per cent. citronellal, 56.5 per cent. alcohols $C_{10}H_{18}O$ (probably geraniol) and 2.4 per cent. esters.

The pleasant-smelling oil of balsam Tolu is obtained by water-vapor distillation from the tolu balsam, which in its turn is secured from the myroxylon balsamum var. A 1.5 to 7 per cent. yield of aromatic essential oil, whose odor recalls hyacinths, is obtained. It can be used in almost all modern bases as well as in hyacinth perfume and heavy oriental perfume.

Not very much is known as to the composition of the oil, but it probably contains benzyl and cinnamyl benzoates, as well as farnesol.

Another excellent essential oil is that of tropaeolum majus L., which Schimmel & Co. have produced in the form of a flower oil; it is one of the most interesting materials, but there are unfortunately only few able to use it correctly. The oil can be used in compositions such as L'Origan and all modern bases.

Very little is known about the composition of tropaeolum oil; the scent carrier is the benzyl mustard oil. The constants of tropaeolum oil are likewise unknown.

Of equal interest is the vanilla oil of Vanilla plantifolia Andr., which smells pleasantly of vanilla. Vanilla oil can be used in almost all heavy oriental perfumes, but it is a Spanish specialty, and as far as I know it is only produced by a single firm over there as a vanilla perfume. It may be used to advantage in bases like Chanel No. 5, Reve d'Or, Maderas de Oriente, Tropiques, Tendres Nuits, Normandie, Nuit de Noel, Tabac Blond, Bamboo, Zibeline, Shanghai, Kobako, Trophee, Vertige, etc.

Xanthorea resin oils of different varieties are interesting, for almost all have a very good perfume. They can all be used as fixers in bases and also in oriental perfumes of the most varied natures; likewise in compositions of the types: Chypre, Fougere, Mitsouko, Pompeia, Crepe de Chine, etc.

The composition of the various varieties is as follows: Oil of xanthorrhoea hastila R. Br., which comes from Australia, according to Schimmel & Co. smells of storax, is of a yellow color and contains cinnamic acid as well as styrol. On distilling the alkaline solution of the same resin H. H. Finlayson obtained

(Continued on page 213)

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ADVANCING THERAPY

ADRENALIN ASCORBATE

The value of injections of adrenalin in the treatment of bronchial asthma is now firmly established. Usually, however, the injections have to be given frequently, even at night, and several attempts have in consequence been made to develop a technique through which the adrenalin is absorbed slowly so as to give a prolonged effect. Major A. Kennedy, R.A.M.C., puts forward a new suggestion to achieve this result. He recommends the use of a concentrated suspension of adrenalin ascorbate in a fatty basis. The suspension contains:

Adrenalin base	0.01 gm.
Ascorbic acid	0.015 gm.
White wax	0.02 gm.
Wool fat	0.04 gm.
Arachis oil	1 mil.

Sterilize the white wax and wool fat with a little of the arachis oil at 150° C. for 1 hour, and allow it to cool. Grind together the adrenalin and ascorbic acid to a fine powder in a sterilized mortar, under aseptic conditions and triturate with some of the arachis oil, which has also been sterilized. Add the mixture of wool fat, wax and oil to form an homogeneous suspension. Transfer at once to dark amber vaccine bottles, each containing glass beads, only half-filled and fitted with a skirted rubber cap. Store in the dark in a refrigerator.

The average dose is 0.3 mil (equivalent to 3 mgm. of adrenalin base) injected with a dry record syringe after previously warming the bottle to a temperature not above 50° C. The maximum effect occurs ¼ to ¾ of an hour after injection and lasts from 6 to 8 hours. The ascorbic acid not only retards the oxidation of the adrenalin and is non-toxic, but it slows up the absorption of the adrenalin base. In practice it was found that these suspensions deteriorated very slowly and were non-irritating to the tissues in concentrations under 15 mgm. per mil. *Lancet, 1941, 2, 279.*

NAPHTHOCAINE

V. G. Haury, C. M. Gruber and M. E. Drake. (*J. Pharmacol.*, 1940, 70, 315.) Naphthocaine is β-diethylaminoethyl-4-amino-1-naphthoate hydrochloride. Although it was slightly more toxic to white mice than cocaine, producing tonic-clonic convulsions, its effective concentration was much less and its anesthetic index was 8.4 compared with 1.0 for cocaine. It was also more effective on the rabbit cornea, and in intradermal guinea-pig tests anesthesia lasted longer than with a comparable dose of procaine. Although the drug did not produce corneal ulceration in cats it caused a temporary fall in blood pressure and depressed the respiration of dogs but no effect on the size of the spleen or rate of the heart was recorded. The fatal dose produced death by respiratory failure.

ATHLETE'S FOOT TREATMENT

Melt U. S. P. phenol and measure out 3 cc. into a mortar; weigh 3 Gm. of U. S. P. camphor, break into small pieces and add to the melted phenol. Rub until the entire mass is liquefied. Transfer into a vial with a stopper suitable for use as a dauber. Keep stoppered when not in use. Experiments indicate that the ingredients may be mixed in the proportion of 3 parts phenol and 1 part camphor.

The mixture is nonirritating to the skin and may be painted between the toes several times a day, the small rubber stopper of the vial being used as a dauber. The sock may be replaced immediately without danger of corrosion. There is no discoloration of the clothing. Relief from itching is immediate. It should be pointed out, however, that the phenol-camphor preparation should not be applied to the wet skin, since water causes a breakdown of the preparation, with the result that it becomes caustic. *E. Francis, J. Am. Med. Assoc., vol. 117, p. 1973.*

HYDROXY METHOXY BENZALDEHYDE

Commercial availability for the first time of 2, 3-hydroxy methoxy benzaldehyde is announced by the Organic Chemicals Division of Monsanto Chemical Company.

The compound undergoes the usual aldehyde reactions and suggests possible uses as an antioxidant and as an intermediate in chemical synthesis. The material is a yellowish crystalline solid having a crystallizing point of 40.0° C. At 50° C. it has a density of 1.20, which is the equivalent of 10.0 pounds per gallon.

Two other new products announced by Monsanto which are of interest as chemical intermediates are 2, 3-dimethoxy benzaldehyde (ortho veratraldehyde), and 2, 2′-diamino diphenyl

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disulfide. These are at present available only in experimental quantities, although the possibility of commercial production is anticipated.

At room temperature 2,3-dimethoxy benzaldehyde is a yellowish brown fused crystalline solid. It has a crystallizing point of 47.5° C. and is almost completely soluble in sodium bisulfite. Specific gravity is 1.117 at 60° C., equivalent to approximately 9.3 pounds per gallon. Its chemical characteristics are similar to those of 2,3-hydroxy methoxy benzaldehyde and it indicates possible use as a perfume fixative as well as intermediate.

2,2′-diamino diphenyl disulfide is a powder of greenish yellow color. It melts between 86° C. and 93° C. and has a molecular weight of 288.

SULFANILAMIDOPYRAZINE

A new derivative of sulfanilamide, 2-sulfanilamidopyrazine, has been given clinical trial in pneumococcal pneumonia. A group of 22 selected patients received the drug by mouth. All showed prompt improvement and ultimate recovery, with no significant signs of toxicity. The drug is apparently tolerated well and it deserves further clinical investigation.

The great majority of the patients in this series had typical pneumonia, although a few had given atypical histories; all had unequivocal clinical or roentgenologic signs of consolidation. Because of the uncertainty concerning the efficacy of the drug, only those patients were selected who, on admission, did not seem to require intravenous therapeutic agents.

An initial dose of 2-4 Gm. was employed orally; thereafter 1 Gm. was given every 4 hours until the patient was free of fever for 2 days. From these doses the blood "sulfapyrazine" level was rarely higher than 3 mg.%; in several instances recovery occurred when only traces were demonstrable in the blood. The drug rapidly disappeared from the blood after administration.

Within 18 hours after the institution of treatment, all of the patients showed clinical improvement. In 4 instances, the diminution or disappearance of pleural pain was the first improvement noted subjectively; more often, improvement was general and less easily defined. In 12 of the patients a critical fall of temperature occurred 12-24 hours after the first dose. In no instance was there a recrudescence of fever after the temperature had fallen below 100° F. (rectal). Three of the patients had positive blood cultures, all of which became sterile within 18 hours. None of the patients had purulent complications either before or after treatment.

Untoward reactions to the drug were infrequent. There was no nausea or vomiting, no skin rash, no depression of blood elements, no alteration in renal function. Mental symptoms consisting of hallucinations and persecutory delusions were noted in 2 patients. Both improved rapidly after discontinuation of the drug. Nor did the symptoms reappear when the drug was again administered in similar doses.

Animal studies are being carried out and will be reported later. Present observations indicate a low order of toxicity in rats, dogs, monkeys and mice. *J. M. Ruegsegger et al. Am. J. Med. Sci. vol. 202, p. 432.*

HEPARIN SUBSTITUTE

A chemical from spoiled sweet clover may replace heparin, antiblood clotting agent which has itself only been available for practical uses within the last two or three years, is reported by Dr. H. R. Butt, Dr. E. V. Allen and Dr. J. L. Bollman, of the Mayo Clinic at Rochester, Minn., as a result of first trials of the new chemical. The new anti-blood clotting substance is the chemical responsible for an often fatal bleeding disease of cattle that have eaten spoiled sweet clover. It is a coumarin compound which was isolated and prepared synthetically by Professor Karl Paul Link and associates at the University of Wisconsin. Advantages of the new remedy are its effectiveness when given by mouth, its prolonged action in lengthening the clotting time of the blood and its cheapness. *Science, Aug. 1, 1941.*

Perfumers' Shelf

(*Continued from page 209*)

1.56 per cent. of an essential oil containing 8 per cent. of low-boiling, pleasant-smelling alcohols (probably mainly citronellol), 53 per cent. cinnamic alcohol, 5 per cent. phenols and resinous substances.

The oil of xanthorrhoea australe R. Br., according to H. Haensel, is obtained in a yield of 0.33 per cent. as a pleasant-smelling reddish-brown oil, smelling agreeably of Peruvian balsam and containing cinnamic acid, free and esterized, as well as styrol.

The oil of xanthorrhoea tateanum, which is obtained in a 5 per cent. yield from the resin occurring on Kangaroo Island, contains paeonol and oxypaeonol, as R. H. Rennie, W. T. Cooke and H. H. Finlayson, have ascertained.

The oil of xanthorrhoea preissii Endl., which is obtained from the resin occurring in Western Australia, also contains paeonol, oxypaeonol and 1-citronellol, according to Rennie, Cooke and Finlayson.

The oil of xanthorrhoea arboreum, obtained by H. H. Finlayson in a yield of 1 per cent., as a dark brown oil having a pleasant, spicy odor, contains 50 per cent. paeonol, 6.5 per cent. oxypaeonol, 17 per cent. non-phenolic substances boiling at Bp_{18}: 115-190°, which contain the scented aroma of the oil and 26.5 per cent. resinous substances.

The oil of xanthorrhoea reflexum Herbert, which Finlayson (*loc. cit.*) obtained in a yield of 6.86 per cent. as a dark brown, pleasant-smelling substance, contained: 62.8 per cent. paeonol, 2.9 per cent. oxypaeonol, 1.5 per cent. phenols having a low boiling-point, benzal aldehyde, 3 per cent. of an aro matic ketone containing a p.-methoxyphenyl group, 17.5 of a compound $C_{13}H_{12}O_2$ or $C_{14}H_{14}O_2$, and 9.1 per cent. resinous substances.

In conclusion, mention must be made of the interesting oil of Xanthoxylum acanthopodium D.C. and X. alatum Roxb. oil, the so-called Wartara oil, which is obtained in a yield of 1.2 to 2 per cent. from a Rutaceae occurring in India and which smells very definitely of coriander.

The oil may be used to advantage for making lily of the valley compositions and also for other flower perfumes such as jasmin.

The constituents of this oil have been stated as dipentene, d-linalol and methyl cinnamate. According, to J. L. Simonsen and M. G. Rau, the oil contains over 50 per cent. linalol and moreover 1-α-phellandrene, small quantities of an aldehyde or ketone, and a mixture of fatty acids. *H. M. Dumont, S.P.C.*

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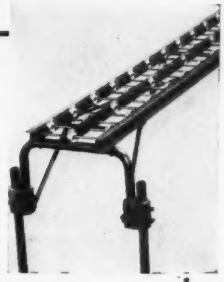

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READERS' QUESTIONS

LOTIONS: We should appreciate a good formula for a hand lotion of the rose-water and glycerine type, and a calamine lotion formula. Pittsburgh.

Rose-water and glycerin hand lotion consists of a simple mixture of equal volumes of glycerin and rose-water. According to N.F. VI, calamine lotion is made in the following way: Intimately mix 80 grams of prepared calamine, 80 grams of zinc oxide, 20 cc. of glycerin and 100 cc. of a solution of calcium hydroxide to form a smooth, uniform paste. Gradually add with stirring enough additional calcium hydroxide solution to make 1000 cc. of solution.

LIQUEFYING CREAM: We have been making a liquefying cream containing coconut and peach kernel oils. The cream is excellent for from three to four months, but then starts to separate, and also becomes rancid within a year. In making this cream, I have added the oils to a basic cold cream formula. We would appreciate any assistance you could give in formulating a stabilized cream that does not become separated nor rancid. Since the cream is colored pink, slight discoloration does not matter. Cleveland.

Your procedure does not permit you to make a properly balanced cream. The addition of oils to a regular cream formula badly disturbs the balance, while the method of addition does not permit the proper degree of emulsification. As a starting point for experimental work try the following formula:

Beeswax	10
Paraffin	10
Mineral oil	20
Vegetable oils	20
Borax	1
Water	39

Melt the oils and the waxes together, dissolve the borax in the water, heat both to the same temperature, about 65° C., and mix thoroughly. Stir until cold. About one-tenth of one per cent. of hydroquinone may be stirred into the melted wax and oil mixture, to act as an anti-oxidant, and one-tenth of one per cent. of methyl parahydroxy benzoate should also be included as a preservative.¶

CAMPHOR LOTION: Can you give us any help in the manufacture of a camphor lotion, preferably based on stearic acid and triethanolamine? I have so far been unable to add enough camphor without causing crystallization. Minneapolis.

Since camphor is extremely insoluble in water, and easily precipitated from solutions in alcohol, camphor lotions such as you have in mind very often consist solely of camphor oil. About 5% of this oil may be emulsified in an ordinary triethanolamine-stearic acid emulsion. You might also try dissolving camphor in a vegetable oil and then emulsifying this oil solution.

BLEMISH CREAM: Will you please advise us what is wrong with our formula for a vanishing cream type of blemish cream? It has a good texture and leaves no visible greasy film, but has a tendency to irritate sensitive skin. We would appreciate your suggesting other medicaments that might be equally effective in this base without the irritation. Another problem has us completely stopped. This is the formulation of an astringent antiperspirant containing aluminum sulfate or aluminum sulfocarbolate in a vanishing cream base. Even the best mixture we have so far made breaks down in a few days. Trenton.

Because of the great variety of medicaments present in your blemish cream, we can offer no constructive suggestions for improving healing qualities. However, irritation can be greatly reduced and probably eliminated completely by the addition of a suitable proportion of ethyl aminobenzoate

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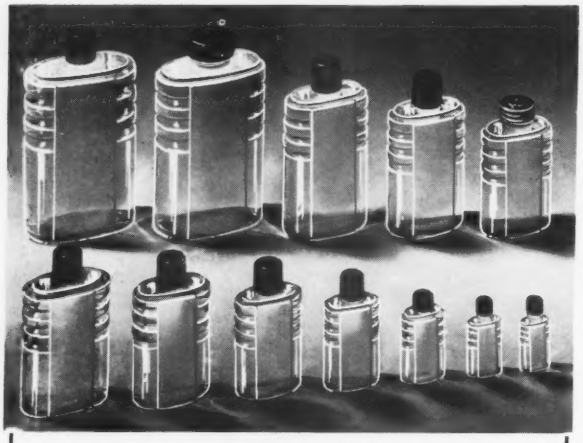

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acting as a local anesthetic. Your approach to the problem of a vanishing astringent cream has been all wrong in that it is not feasible to mix a strongly acid substance such as an aluminum salt with the alkalies necessary for the formulation of usual vanishing creams. Instead you must use one of the proprietary acid emulsifying agents offered by advertisers in this magazine, and which will produce stable vanishing creams with aluminum salts in concentrations as high as 15 per cent.

SACHET POWDER: I am very anxious to obtain a simple, effective formula for a sachet powder. New Orleans.

A sachet powder can consist of ground corn meal, saturated with the desired perfume. Other substances that can be used in place of corn meal, are talc, kaolin, etc.

ROLLING LOTION: Please suggest a method of making a rolling lotion which when applied and rubbed into the skin will roll in the same way as a rolling massage cream. Syracuse.

The only suggestion we can give in this matter is the use of the same procedure as in the formulation of rolling creams, namely, the elimination of oils and glycerin. Thus, a lotion consisting solely of stearic acid, an alkali, and water should roll when rubbed out on the skin. Some alcohol may be included in the formula to reduce the evaporation rate.

MAGNESIUM CARBONATE CREAM: I have been experimenting with a deodorant cream using at least 15 to 25% of magnesium carbonate as the principal ingredient. In a regular vanishing cream formula, magnesium carbonate forms an insoluble compound and breaks down the cream. I have used various types of paste mixtures but these too have been quite unsatisfactory. I should appreciate any assistance you can give me in solving this problem. Toledo.

I do not believe that magnesium carbonate is especially effective in deodorant mixtures and in vanishing creams would react with excess stearic acids to form magnesium stearate. Liberation of carbon dioxide would make a fluffy cream but the magnesium stearate would lead to a complete breakdown. Pastes are not likely to be as acceptable as a well formulated cream. We feel that you can make a cream with large amounts of magnesium carbonate if you will use not a standard vanishing cream formula based upon stearic acid and soap, but one of the special emulsifiers other than soap that is stable with magnesium compounds.

WAVE SET FORMULA: Would you be kind enough to give me information as to the composition of a wave set lotion? Brooklyn.

A wave set lotion consists of a one per cent. solution of gum karaya in water. Up to about 10 per cent. of alcohol may be included to make the mixture dry more quickly and a small amount of glycerin will help prevent flaking. Thicker preparations are made by increasing the proportion of gum in the mixture.

PERMANENT WAVING: We manufacture a permanent wave solution containing ammonium carbonate, sodium sulfite, borax, ammonia water, and a proprietary permanent wave oil, which seems to work satisfactorily. We are trying, however, to compound a mixture with similar properties, but containing no non-volatile ingredients; a formula in mind would contain ethanolamine sulfite, methyl cellulose, glycerin, and the wave oil. What do you think of this mixture? We are also trying to formulate a quick-drying wave set based upon methyl cellulose, glycerin, alcohol, ethanolamine sulfite and water. Have you any suggestions to offer on this combination? Chicago.

In your present formula, borax is unnecessary and can safely be replaced by an equal amount of ammonia water. Substitution of ethanolamine sulfite for the sodium sulfite you now use will then give you a completely volatile permanent waving solution, using more ammonium carbonate if necessary to increase activity. Methyl cellulose is unnecessary in the mixture. On the other hand, ethanolamine sulfite can serve no useful purpose in your proposed wave set formula. The combination of methyl cellulose and alcohol must be carefully adjusted to give quick drying without precipitating the gum.

HAIR POWDER: We have recently had several inquiries for a dry powder to be sprinkled on the hair and then brushed away, removing excess oiliness. This is supposed to be based upon starch or orris root and we would appreciate any suggestions you could give us concerning useful ingredients. San Francisco.

The principle underlying preparations of this type is the absorption of oil, and accompanying dirt, by absorbent powders. Starches, powdered oatmeal or bran and similar absorbent powders should be reasonably effective. Fullers earth, magnesium carbonate, and other inorganic absorbents, should increase the absorbing efficiency of the mixture.

LUBRICATING JELLY: We should much appreciate your publishing a formula for a surgical lubricant. The problem is to produce a water-soluble, stable jelly suitable for lubricating surgical instruments, catheters, etc. Montreal.

The making of a surgical lubricating jelly is the simple one of making a clean jelly with the additional proviso of complete cleanliness and sterility of the finished product. A very fine grade of tragacanth, using the proper proportion, is made into a jelly of the desired consistency. From 2 to 3 per cent. of the powdered gum should be used. To avoid discoloration of the product, heat should be avoided during manufacture. The powder is mixed with a small amount of pure alcohol containing enough methyl p-hydroxy benzoate to make one-tenth of one per cent. of preservative in the finished product. Pour this suspension slowly into thoroughly stirred water and allow to stand for a time. The jelly should be carefully filtered to eliminate lumps and foreign matter and then be thoroughly sterilized. The addition of a small amount of glycerine will prevent the jelly from drying too rapidly.

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Cedar wood oil 15c
Citronellol 30c
Clove oil 20c
Ergot 10c
Eugenol 60c
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Gentian root 5c
Geranium oil, African $1.50
Bourbon $5.50
Grape fruit oil 10c
Helonias root 10c
Hydroxycitronellal $1
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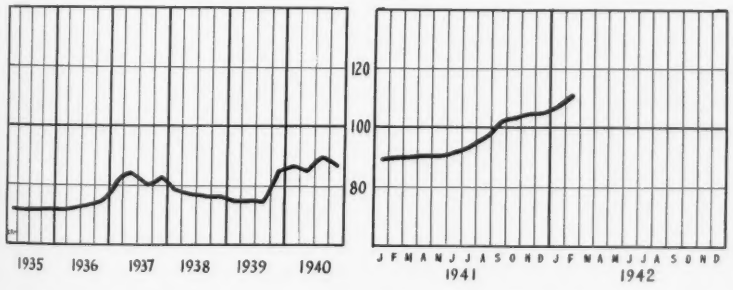
Japan wax 7c
Kamala 6c
Lactic acid 4c
Lemon grass oil 50c
Lemon peel 2c
Lime oil, dist. $3
Expressed $2.50
Mace oil 20c
Nutmeg oil 20c
Oleoresin ginger $1.10
Papain 25c
Patchouli oil 25c
Podophyllin 85c
Psyllium seed 5c
Quince seed 35c
Rhubarb root HD 5c
Sarsaparilla root, Hond. 23c
Mexican 3c
Sassafras oil 85c
Senna, Alex. 8c
Tinnevelly 5c
Spermaceti 4c
Stearic acid TP 1c
Tragacanth gum No. 1 35c
No. 2 55c
Turmeric root, Aleppy 2c
Madras 2c
Vanilla Beans, Mex. cits $1
Witch Hazel extract 30c
Wintergreen oil 50c

Down

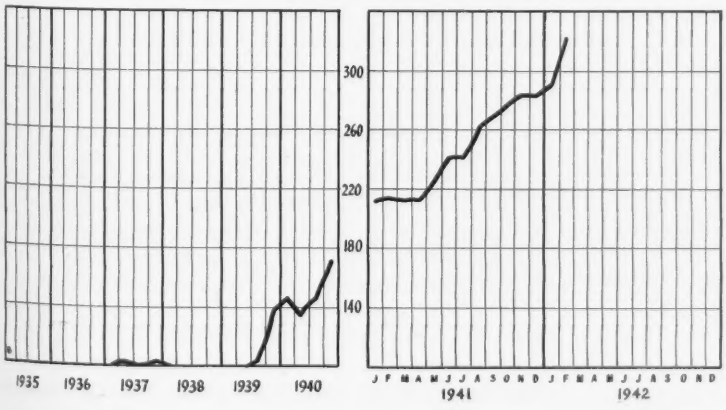
Balsam Copaiba Para 5c
Canaga oil, Native 50c
Rectified 50c
Menthol, Jap. 75c
Chinese 75c
Peppermint oil, Nat. $1
Redist. 75c

25 Cosmetic Raw Materials—Unweighted Price Index. 1926=100.



The cosmetic raw materials index advanced to 111.2 from the previous 107.0. White bleached beeswax was up 2 cents to 58 cents; Japan wax was higher at 40 cents; quince seed rose to $1.70; spermaceti was higher at 29 cents; stearic acid advanced from 16½ cents to 17½ cents, and gum tragacanth was put up to $3.75 a pound. Balsam Copaiba declined 5 cents to 40 cents and natural menthol declined to $13.25.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index advanced sharply to 322.8 from the previous 290.0. Agar was up to $4.75 from the previous $3.00; buchu advanced from 74 cents to 82 cents; ergot was 10 cents higher at $1.95; gentian rose to 65 cents; ipecac was up 5 cents to $1.50; rhubarb HD was 5 cents more at 85 cents and senna rose from 12 cents to 17 cents. There were absolutely no soft spots in the botanicals market as a whole.

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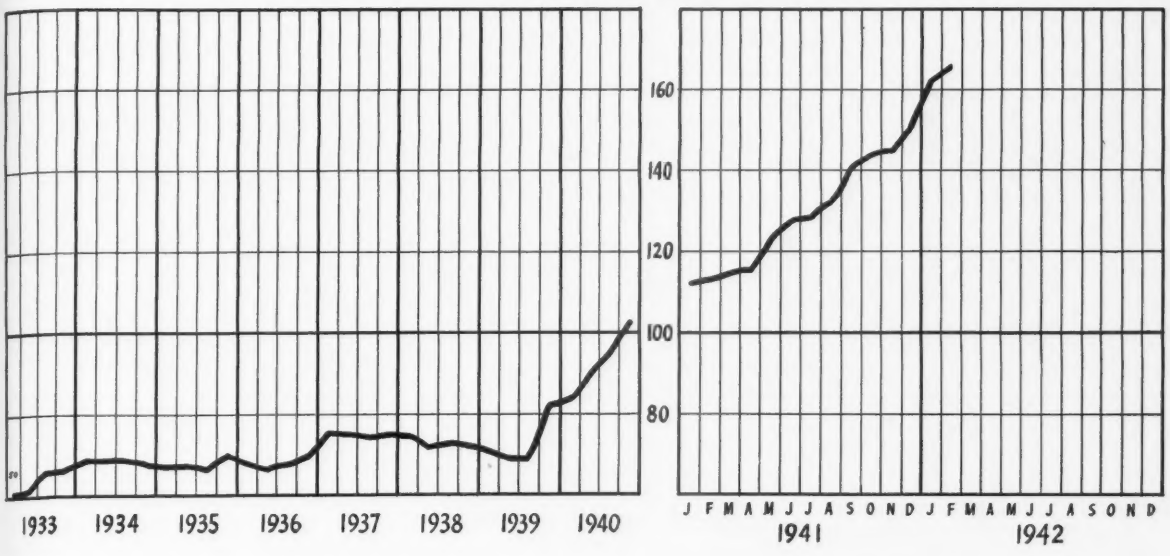
50 Raw Materials—Weighted Price Index. 1926=100.



The price index of fifty commodities for January, 1942, increased to 166.2 from the previous 162.6. Developments in the Far East continued to overshadow all other developments in the raw material markets. Items most likely to be affected immediately are citronella oil, oil vetivert Java, menthol, anise oil, cassia oil, camphor, spice oils and many aromatic derivatives. The domestic situation also took a turn for the worse last month with priorities causing difficulties for manufacturers of aromatic chemicals in particular.

• Prices quoted in this section were current on the first of this month.

ESSENTIAL OILS

For some time now attention has mainly been directed to those cosmetic and perfume raw materials which have their origin mainly in foreign countries. While the situation in this group of products is more serious today than has been the case since the start of World War II, the spotlight of attention of late has been directed more toward domestic items in this field.

Ethyl alcohol is now under restrictions for most cosmetic products including hair and scalp preparations, shampoos, face and hand lotions, toilet waters, perfumes, toilet soaps, mouth washes, tooth cleaning preparations, perfume materials, etc.

No purchases of chlorine can now be made without the consent of OPM. Chlorine is necessary in the manufacture of aluminum chloride, without which there is likely to be a short market in phenyl ethyl alcohol, phenyl ethyl acetate, musk ambrette, musk ketone, and thymol.

Carvacrol, musk ambrette and thymol are dependent on an adequate supply of phenols. This basic material is now under rigid priority control. Toluene is another item which will be allocated by the Office of Production Management. Consumers should therefore watch the market for vanillin, thymol, terpineol, etc.

As far as foreign items are concerned importers are laboring under the most extreme difficulty and many products are now feeling the pinch of a dwindling spot supply in real earnest. Orris root and oleoresin orris are becoming increasingly scarce. Italian lemon oil is no longer offered on spot. There is no longer an established market for many of the French oils and the prospect of negotiation for the release of these vitally necessary materials is bad. Prices of flower oils are entirely nominal. Products from the French possessions are in a similar position. Bourbon geranium, African orange oil are items in point.

While Spain is producing essential oils regularly, importations from that source have practically ceased. This is reported due to the difficulty in obtaining navicerts and the fact that when they are obtained they have a time limit which, because of the difficulty in the shipping situation, further aggravates matters.

Bulgarian rose oil supplies seem ample at present and styrax from Turkey is available in satisfactory quantities. However, no oakmoss from Jugoslavia has reached this market in some time.

The advent of Japan into the war was an important factor in the general supply position. Citronella oil from the Dutch East Indies has advanced to a new high level and it is likely this will have a retarding influence on the production of synthetic menthol. Oil of vetivert Java is very firm on spot as future shipments are doubtful. Other oils to watch are patchouli cananga, clove oil, sandalwood, lemongrass and various spice oils.

Anise oil from China is now priced on spot at from $2.90 to $2.95 a pound with cassia oil from the same source entirely

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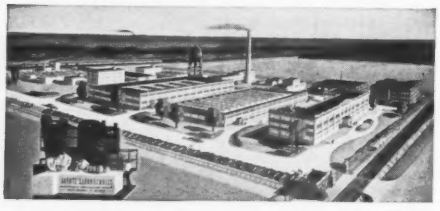

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nominal. Small lots have changed hands at exceptionally high prices.

While many projects are underway in the entire Western hemisphere which have as their object the establishment of an essential oil industry on this side of the Atlantic, the problems are many, require a great deal of research and experimentation, and it undoubtedly will be a long time before relief from present scarcity can be expected.

VITAMINS

Producers of vitamin B_1 (Thiamine Hydrochloride U.S.P.), announced a further price reduction during the current trading period. Until further notice prices are as follows: 1 kilo fiber drum, gram 53c; 100 gram bottle, gram 53c; 5 gram bottle, gram 56c.

The price of ascorbic acid (vitamin C cryst. U. S. P.) has also been reduced to the following schedule: 1000 oz. tin, oz. $1.65; 500 oz. tin, oz. $1.66; 50 oz. bottle and tin, oz. $1.69; 25 oz. bottle, oz. $1.72.

Riboflavin was also reduced in price to the extent of 25c a gram with the following quotations now in effect: 100 gram bottle, gram, $1.25; 50 gram s.c.b., gram, $1.28; 25 gram s.c.b., gram $1.28; 10 gram s.c.b., gram $1.28; 1 gram s.c.b., gram $1.35.

The price schedule for nicotinamide (Nicotinic acid amide) has also been revised as follows: 25 lb. jar, $17 lb., 5 lb. s.c.b., $17.10 a pound; 1 lb. s.c.b., $17.14 a pound.

LIME OIL

Greatly increased prices for lime oil again characterized the spot market for this item. Distilled oil is now offered at a price range of from $13.00 to $14.00 a pound and expressed at from $15.00 to $16.00 a pound.

The sole producer of lime oil in the Veracruz district of Mexico will produce for export this year approximately 2,500 kilograms of distilled essential oil of lime. The product will be packed in tins or drums.

COD LIVER OIL

It now seems quite evident that supplies of cod liver oil in the spot market should take care of the normal requirements over the balance of the present consuming season. It is hoped that the normal sources of supply that have been available up to date will continue and that the article will remain on a nominal price basis but it will not be known for several months what the exact situation is. Medicinal oil is currently being offered here at a price range of from $75 to $85 a barrel.

ALCOHOL

Requests for allotments of ethyl alcohol and related solvents for February have generally been completed and dispatched to the Priorities Division of the OPM and the data in the requests will give the OPM for the first time an accurate and up-to-date picture of inventories. Trade reports were to the effect that inventories for consumers of solvents as a whole were still better than a month's supply and it was expected that allotments will be made not much over 70 per cent. of quantities taken last February.

The diversion of a large part of the liquor distilling machinery of the country to industrial alcohol production will ease the pressure on supplies only slightly and only for a short time, according to trade understanding, because the bulk of this will be used in new smokeless powder plants now under construction. The extent to which the new industrial production helps will depend upon whether the powder plants are ready for operation by the time the liquor distilling machinery is converted.

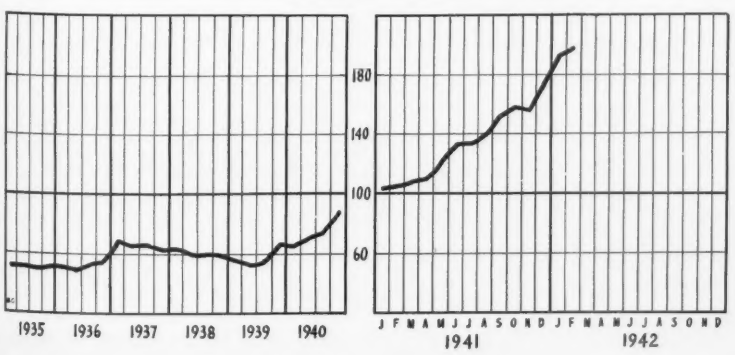
In their applications for allotments, the users must state not only how much they want, but also how much they have on hand, what use is to be made of it and how much they actually obtained in February, 1941. This leaves the Priorities Division three reasons for action, any one of which could result in a cut in allotments or even no allotment at all. If a user has what the OPM deems to be too much stock, he will get no February allotment or only enough to bring his stock by the end of February to a level more satisfactory to OPM. If he intends to use the solvent for a purpose that does not meet the approval of OPM, he won't get it. If the request is too high in relation to last year's takings, it will be reduced.

The trade understanding now is that the OPM will not make public the inventory picture as gleaned from the applications, but there was some belief that this might be changed later. The long list of articles in which certain industrial alcohols no longer may be used may be increased if the statistics gathered in the applications indicate need for further tightening of uses. Many of the producers of items on the banned list, however, were understood in the trade to have moderate inventories which will carry them along for the next six weeks to two months.

MUSK

Discovery of a new source for natural musk, rare and valuable ingredient of fine perfumes, was announced recently

15 Essential Oils—Weighted Price Index. 1926=100.



The essential oil index was up to 197.0 from the previous 192.7. Anise oil rose to $2.90; cassia oil was 50 cents more at $10.50; clove oil rose to $1.70; geranium oil was sharply higher at $18.50; lime oil jumped $2.50 a pound to $15.00. Domestic peppermint, however, declined $1.00 a pound to $6.00 and canaga was lower at $13.00.

POWDER BASE NO. 7

Since the introduction of this new face powder material sales of it have constantly increased because the use of it actually represents a development in fine face powders.

Its exceptional silky, soft, smoothness, the complete absence of odor and the extremely fine particle size of it, plus its extraordinary adhesiveness actually improves a face powder in which it is used. As little as 5% added to your formula will bring about this result although it is being used in some face powder to the extent of 15% and a formula is offered showing its use in this percentage.

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by scientists at Yale and Louisiana State universities.

Formerly obtained only from the musk deer of Asia and the civet cat of Abyssinia, sources now cut off by the war, musk can now be extracted from the muskrat, which is distributed in abundant quantities throughout North America, especially in Louisiana, where from 4,000,000 to 5,000,000 are trapped annually for their fur, states the report. The muskrat is found most frequently in swamp or marsh lands near rivers and lakes.

Preliminary work on this new natural musk began in 1935 at the Massachusetts Institute of Technology and Louisiana State University and was continued at Harvard. It is now being furthered on animals, in addition to the muskrat, at both Yale and Louisiana State.

Musk renders the fragrance of perfumes more permanent, acting as a "fixative," and endows them with a pleasing quality of "naturalness" which cannot be obtained by any other means.

The musk is extracted from the preputial glands of the muskrat, located near the sex organs. The glands are oval-shaped and as large as almonds. There are two in each animal and about 175 muskrats must be used to produce three ounces of crude musk. This in turn yields one ounce of saponified musk which eventually narrows down to one-third of an ounce of distilled musk.

While only two per cent. of this material is true musk having odoriferous qualities which can be utilized directly by perfume manufacturers, the remaining 98 per cent., consisting of a mixture of alcohols, can be converted readily to the same true musk by means of a process which the Yale and Louisiana State chemists have perfected. By this method, the yield of true musk from the muskrat becomes about three times that of the Asiatic deer and twice that of the civet cat.

BORAX

Manufacturers of borax and boric acid have advanced quotations in keeping with higher production costs. The move follows the announcement from Washington to the effect that the prices had been approved. The advance in borax amounting to $2 a ton establishes the price of refined powdered material in carload lots, bags, at $50 per ton. Single ton lots of 2,000 pounds are quoted at $61.

New prices on boric acid, in barrels, carlots, are $5.70 per cwt., while in single tons $6.30 per cwt. is quoted. Prices on U. S. P. granular range from $6.95 to $7.55 per cwt.

OLIVE OIL

Owing to the advanced stage and abundance of the 1941-42 Spanish olive crop, together with the scarcity of olive oil, the pressing which usually begins in November started somewhat earlier in the Provinces of Seville and Cordoba. This operation will continue in the other cooler districts probably until May, 1942. Although it was previously announced that an output of 350,000 metric tons of olive oil is expected for the 1941-42 season, principal exporters in Seville estimated at the end of November that production will reach 400,000 to 450,000 tons.

As a result of favorable weather conditions, the crop of olives for pressing in the Provinces of the Seville district and other Spanish producing centers is reported abundant and of good quality. Harvesting and milling were proceeding normally in November.

Exportation of olive oil continues to be controlled by the Government. In addition to the 270 tons of olive oil reported shipped from Spain to the United States in August 1941 (Spanish figures), and the shipment of 311 tons planned for the early part of December, both in compensation for similar amounts of peanut oil from the United States, 1,510 tons of oil were exported from Barcelona to Genoa, Italy, and 830 tons from the port of Tarrangona to the same destination during September and October, 1941, according to a reliable source.

Stocks of edible olive oil in Spain from 1940-41 production are estimated (by principal exporters in Seville and by other trade sources) to be exceptionally small. There may be, it is stated, from 8,000 to 10,000 metric tons at most.

Prices and regulations for exportation of the 1941-42 olive oil production had not been established at the close of November, 1941. Prices of the 1940-41 oil output for export were not fixed during 1940, or in the first 11 months of 1941.

IPECAC

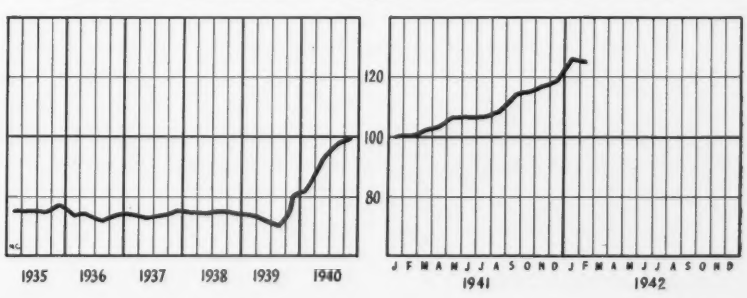
During the first 9 months of 1941 exports of ipecac from Brazil amounted to 1932 tons, of which 100 tons were shipped to the United Kingdom, 27 tons to the United States, and 5 tons to Japan. An additional shipment of 2 tons went forward to Japan in November. There are practically no stocks of ipecac in Brazil at the present time.

Production of ipecac is very uncertain, and the price mechanism governs production to a great extent. For this reason it appears that the amount produced in 1942 under a preclusive purchasing arrangement would be dependent to some extent on the price that will be paid by the purchasers.

Ipecac root showed strength during the current trading period on the spot market. Prices were advanced 5c a pound with the range now at from $1.50 to $1.60 a pound.

Medicinal chemicals index declined slightly to 124.8 from the previous 126.3. This was mainly caused by the lower spot price of mercury metal which is now offered at $201 a flask. Menthol also was quoted lower on spot at $13.25 from the previous $14.00. Price schedule No. 93, mercury, effective February 4, fixes maximum base prices for prime virgin mercury at $191 per 76 pound flask, f.o.b. point of shipment.

15 Medicinal Chemicals—Weighted Price Index. 1926=100.



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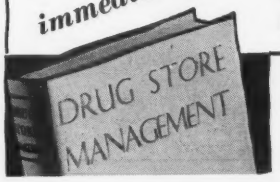

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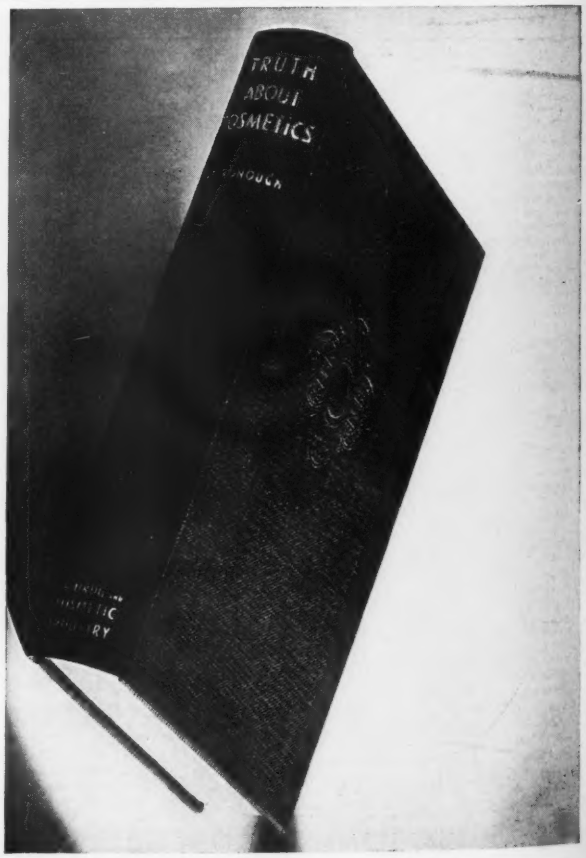

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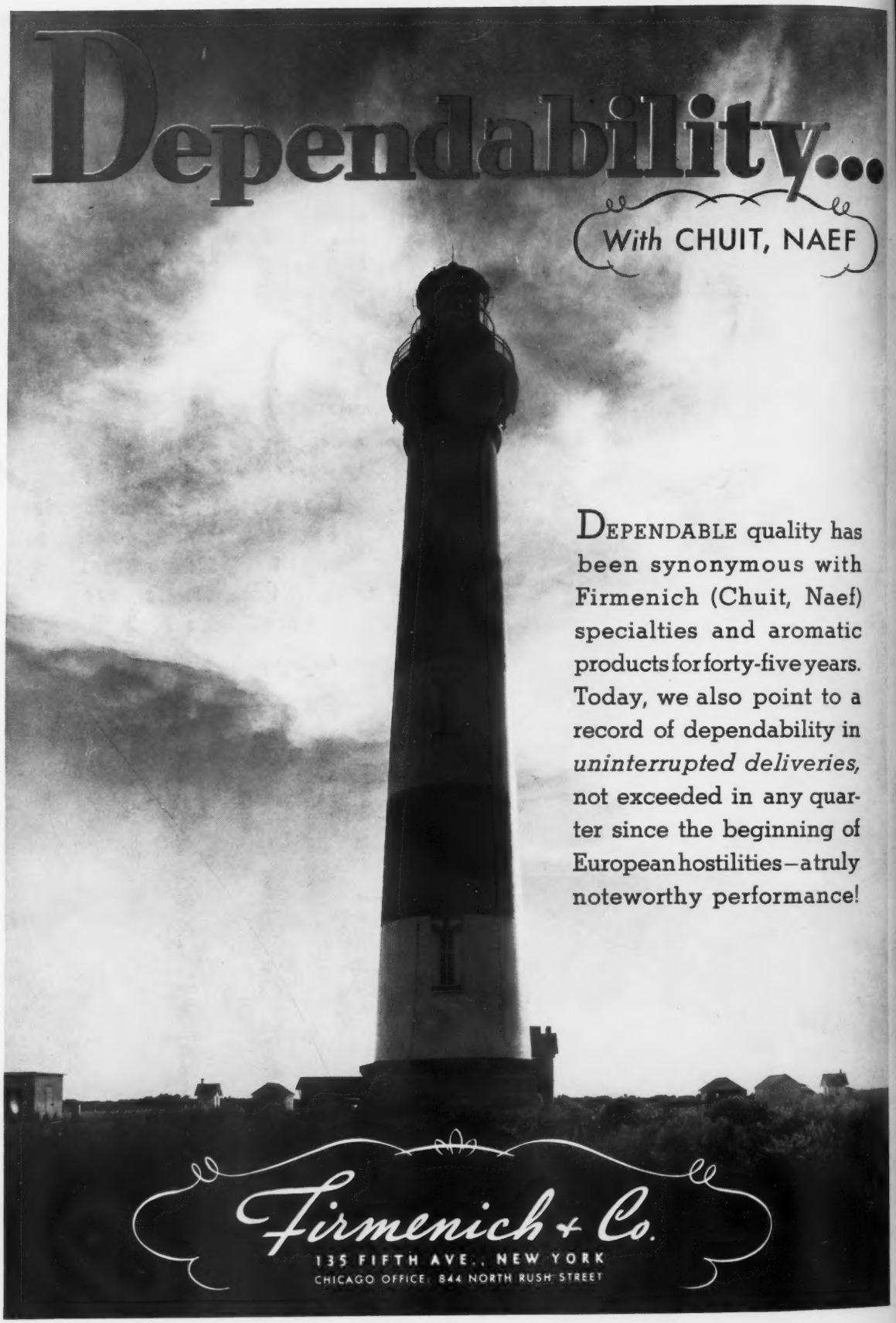
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